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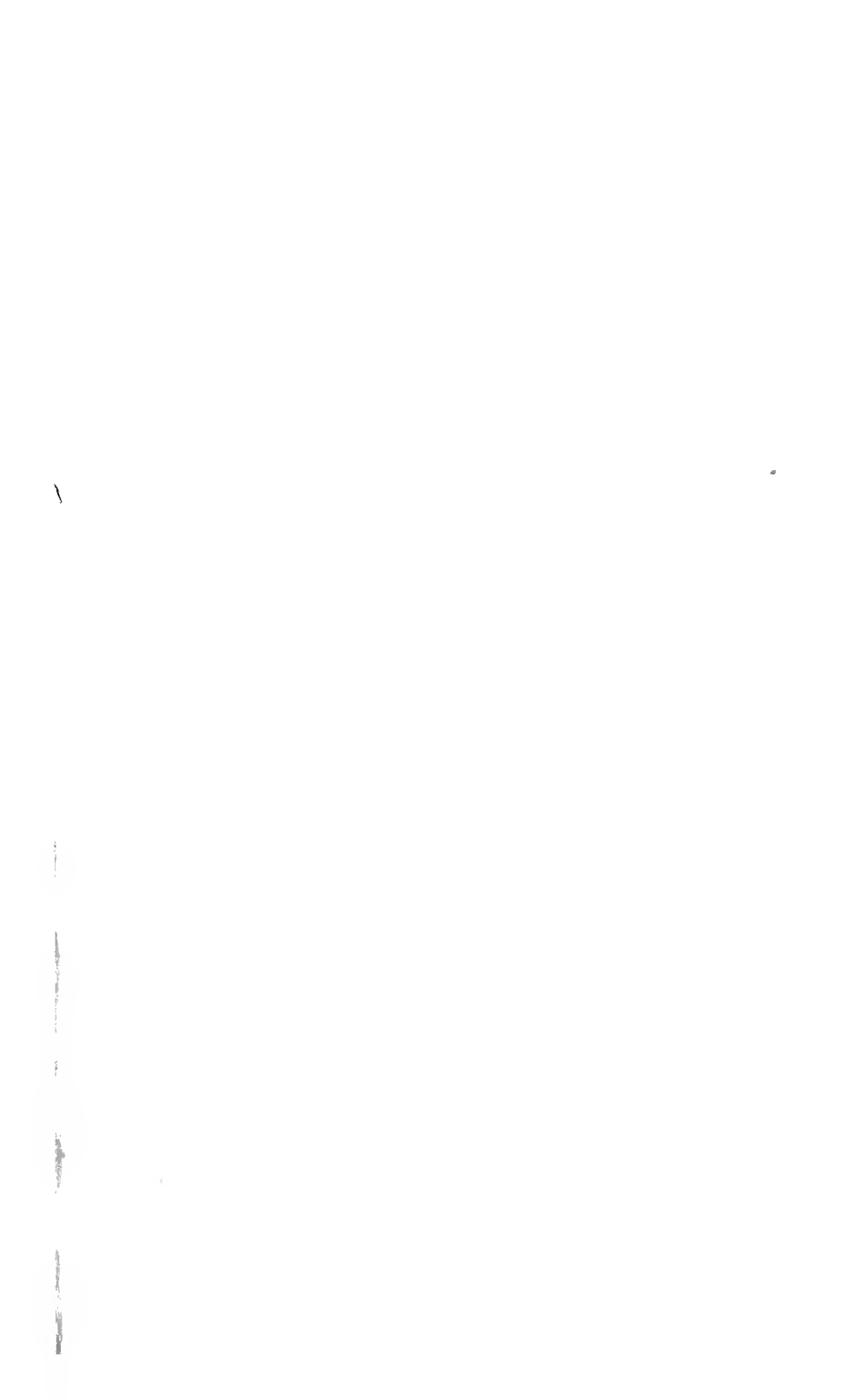
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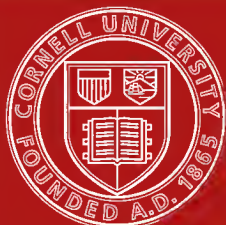
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INDEX OF MINING ENGINEERING LITERATURE

COMPRISING AN
INDEX OF MINING, METALLURGICAL, CIVIL, MECHANICAL,
ELECTRICAL AND CHEMICAL ENGINEERING
SUBJECTS AS RELATED TO MINING
ENGINEERING

ALSO
COSTS OF MINING AND METALLURGICAL
OPERATIONS, ETC.

BY
WALTER R. CRANE, PH.D.

DEAN OF THE SCHOOL OF MINES, AND PROFESSOR OF MINING, THE PENNSYLVANIA
STATE COLLEGE, AUTHOR OF "A TREATISE ON GOLD AND SILVER,"
"ORE MINING METHODS," AND NUMEROUS ARTICLES ON MINING

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PREFACE TO SECOND VOLUME OF INDEX

IN order that an index may be valuable it must be added to from time to time, including references to the new material in the current technical literature and annual proceedings of societies. To this end the Index of Mining Engineering Literature has been enlarged by the preparation of an additional volume covering the list of publications indexed for the first volume, besides a number of other publications. Still other publications would have been incorporated in this volume of the Index had they been available.

The two special features that distinguish this Index from others are cross-references and multiple references. By the former is meant the reference to other subjects under which information can be obtained relative to the special subject in question; and by the latter is meant the breaking up of a paper or article into a number of references which are distributed under appropriate headings.

The special feature of the present volume of the Index is the list of references on cost which are distributed over and cover practically every phase of mining and metallurgical practice. These references to costs are particularly interesting and valuable to the practicing engineer.

As was stated in the former volume of the Index, the work has been the result of the unaided labor of the author, and all errors are, therefore, due to his oversight.

WALTER R. CRANE.

SCHOOL OF MINES,
THE PENNSYLVANIA STATE COLLEGE,
June 1, 1912.

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PUBLICATIONS INDEXED AND ABBREVIATIONS

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- Am. Jour. Min. — American Journal of Mining.
Coll. Engr. — Colliery Engineer.
Coll. Engr. & Met. Miner. — Colliery Engineer and Metal Miner.
Engineering, London.
E. & M. J. — Engineering and Mining Journal.
J. C. M. I. — Journal of the Canadian Mining Institute.
J. C. & M. Soc. S. A. — Journal of the Chemical and Metallurgical Society of South Africa.
J. W. Soc. E. — Journal of the Western Society of Engineers.
J. M. Soc. N. S. — Journal of the Mining Society of Nova Scotia.
Min. Mag. (old series). — Mining Magazine.
Min. Mag. (new series). — Mining Magazine.
Min. Mag., London. — Mining Magazine, London.
M. & M. — Mines and Minerals.
Min. & Sci. Press. — Mining and Scientific Press.
P. C. M. & M. Soc. S. A. — Proceedings of the Chemical, Mining and Metallurgical Society of South Africa.
P. E. Soc. W. Pa. — Proceedings of the Engineering Society of Western Pennsylvania.
P. Soc. P. E. E. — Proceedings of the Society for the Promotion of Engineering Education.
Sch. Mines Quart. — School of Mines Quarterly.
T. A. I. M. E. — Transactions of the American Institute of Mining Engineers.
T. Au. I. M. E. — Transactions of the Australian Institute of Mining Engineers.
T. I. M. E. — Transactions of the Institution of Mining Engineers.
T. I. M. & M. — Transactions of the Institute of Mining and Metallurgy.
T. L. S. M. I. — Transactions of the Lake Superior Mining Institute.
T. N. S. I. M. & M. E. — Transactions of the North Staffordshire Institute of Mining and Mechanical Engineers.
T. F. C. M. I. — Transactions of the Federated Canadian Mining Institute.
U. S. G. S. Publications. — United States Geological Survey Publications, except Water Supply Papers.

PUBLICATIONS INCOMPLETELY INDEXED

Reports of Surveys, Proceedings of Societies, etc.

- Ann. Min. Rept. N. S. Wales. — Annual Mining Report of New South Wales.
Cal. Miners' Assoc. Ann. — California Miners' Association Annual.
Columbia Engr. — Columbia Engineer.
P. I. C. E. — Proceedings of the Institute of Civil Engineers.

- Rept. Census Office, Mines and Quarries. — Report Census Office, Mines and Quarries.
 Rept. Insp. Mines Pa. — Report of the Inspector of Mines of Pennsylvania.
 Rept. Zinc Comm. Canada. — Report of the Commission Appointed to Investigate the Zinc Resources of British Columbia, etc.
 Second Geol. Sur. Pa. — Second Geological Survey of Pennsylvania.
 The Mines of the West. — Raymond.
 The Univ. Geol. Surv. of Kans. — The University Geological Survey of Kansas.
 Univ. of Ill. Bull. — University of Illinois Bulletin.
 U. S. Bureau of Mines. — United States Bureau of Mines.

JOURNALS

- Am. Engr. & R.R. Jour. — American Engineer and Railroad Journal.
 Coll. Guard. — Colliery Guardian, London.
 Concrete and Constructional Engineering, London.
 Electrochemical Industry.
 Eng. Mag. — Engineering Magazine.
 Eng. News. — Engineering News.
 Eng.-Cont. — Engineering Contracting.
 Mining World.

BOOKS

- Anthracite Coal Industry, Roberts.
 Aerial or Wire Rope Tramways, Willis-Taylor.
 Coll. Working and Management, Bulman and Redymayne.
 Diamond Drilling, Denny.
 Earthwork and Its Cost, Gillette.
 Gold Min. & Mill. W. Aus. — Gold Mining and Milling Western Australia, Charleton.
 Kents' Mech. Engrs. Pocket-Book. — Kents' Mechanical Engineers' Pocket-Book.
 Mech. Eng. of Coll. — Mechanical Engineering of Collieries, Futers.
 Mine Building Construction.
 Miners Pocket-Book, Lock.
 Ore Dressing, Richards.
 P. C. M. — Practical Coal Mining, Ed. W. S. Boulton.
 R.R. Construction. — Railroad Construction, Webb.
 Sci. Am. Supp. — Scientific American Supplement.
 The Gold Mines of the Rand, Hatch and Chalmers.
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 Tin Deposits of the World.
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COLLIERY DISASTERS. By F. A. Hill. E. & M. J., vol. 86, p. 18. 2 columns.

See also COAL DUST AS AN EXPLOSIVE, MINE FIRES, AND MINE EXPLOSIONS.

MINE ACCIDENTS. By J. T. Quine. T. L. S. M. I., vol. 14, p. 71. 10 $\frac{1}{2}$ pages.

MINE ACCIDENTS. By S. Reynolds. M. & M., vol. 29, p. 412. 3 columns.

ACCIDENTS IN STOPES. E. & M. J., vol. 87, p. 300. $\frac{3}{4}$ column.

MINING ACCIDENTS IN CORNWALL. Min. Mag., London, vol. 1, p. 119. 6 columns. I.

ACCIDENTS IN THE COAL MINES OF GREAT BRITAIN. E. & M. J., vol. 89, p. 975. 4 columns.

COAL-MINE ACCIDENTS IN GREAT BRITAIN. E. & M. J., vol. 89, p. 1029. 2 columns.

COAL-MINING ACCIDENTS IN 1907. M. & M., vol. 29, p. 326. $\frac{1}{4}$ column.

METAL-MINING FATALITIES IN IDAHO, FOR 1910. M. & M., vol. 31, p. 700. 1 column.

COAL-MINE DISASTERS IN NORTH AMERICA FROM 1869 TO 1910. E. & M. J., vol. 90, p. 949. Table.

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Loss of Life in Mining

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Cause of Accidents

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COMMON CAUSES OF ACCIDENTS FROM EXPLOSIVES IN MINES. By J. R. Godfrey. T. Au. I. M. E., vol. 9, p. 30. 32 pages.

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DANGERS ATTENDING USE OF ELECTRICITY IN COAL MINES. By J. Ashworth. E. & M. J., vol. 88, p. 123. 2½ columns.

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- CARELESSNESS WITH ELECTRICITY. E. & M. J., vol. 90, p. 726. $1\frac{1}{2}$ columns.
- SAFE USE OF ELECTRICITY IN GASEOUS MINES. M. & M., vol. 31, p. 126. 1 column.
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- PECULIAR MINE ACCIDENT: A Fire Resulting from Substituting Crude Petroleum for Car Lubricating Oil. By J. Elliott. M. & M., vol. 29, p. 488. $1\frac{1}{2}$ columns.
- DANGEROUS GASES CAUSING MINE ACCIDENTS. T. Au. I. M. E., vol. 9, p. 37. 2 pages.
- See also MINE EXPLOSIONS AND MINE GASES.
- CARELESSNESS IN MINING: Cause of Accidents. E. & M. J., vol. 89, p. 526. $\frac{1}{2}$ column.
- CARELESSNESS IN MINES CAUSE OF ACCIDENTS. M. & M., vol. 30, p. 355. $\frac{1}{2}$ column.
- COAL-MINE ACCIDENTS ARE DUE TO VIOLATIONS OF MINE LAWS. E. & M. J., vol. 88, p. 1176. $1\frac{1}{2}$ columns.
- MINE ACCIDENTS DUE TO DISREGARD OF LAW. E. & M. J., vol. 89, p. 578. 1 column.
- THE RESPONSIBILITY FOR RECENT COAL-MINE DISASTERS. E. & M. J., vol. 85, p. 969. $3\frac{1}{2}$ columns.
- ACCIDENTS DUE TO LAX DISCIPLINE. E. & M. J., vol. 90, p. 1044. $\frac{2}{3}$ column.
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- Protection in Mining**
- COAL-MINE ACCIDENTS AND THEIR PREVENTION. By J. A. Holmes. Min. & Sci. Press, vol. 100, p. 673. 3 columns.
- COAL-MINE ACCIDENTS AND THEIR PREVENTION. By Dr. J. A. Holmes. Eng. News, Dec. 9, 1909.
- CAUSE AND PREVENTION OF EXPLOSIONS. Colliery Guardian, vol. 59, p. 326.
- MINE-ACCIDENT PREVENTION. By J. J. Rutledge. M. & M., vol. 31, p. 276. $4\frac{1}{2}$ columns.
- A CHECK SYSTEM FOR GASEOUS MINES. By O. Cartlidge. M. & M., vol. 30, p. 331. 1 column.
- See also MINE ATMOSPHERE AND GASES.
- PRECAUTIONARY SUGGESTIONS TO ALABAMA COAL MINERS: Regarding Accidents. E. & M. J., vol. 89, p. 478. 2 columns.
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- PREVENTION OF ACCIDENTS IN MINING. T. L. S. M. I., vol. 14, p. 93. 1 page.
- PREVENTION OF ACCIDENTS IN METAL MINES. By C. T. Rice. E. & M. J., vol. 87, p. 298. $14\frac{1}{2}$ columns. I.
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- THE PREVENTION OF ACCIDENTS IN COAL MINING. By E. H. Cox. E. & M. J., vol. 88, p. 410. $9\frac{1}{2}$ columns.
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- PREVENTION OF COAL-MINE ACCIDENTS. M. & M., vol. 30, p. 308. $5\frac{1}{2}$ columns.
- PREVENTION OF COAL-MINE ACCIDENTS. By J. A. Holmes. M. & M., vol. 30, p. 329. $1\frac{1}{2}$ columns.
- PREVENTION OF MINE ACCIDENTS. By J. Mitchell. M. & M., vol. 30, p. 346. $\frac{2}{3}$ column.
- THE PREVENTION OF MINE ACCIDENTS. By R. H. Coulson. E. & M. J., vol. 90, p. 1043. 3 columns.
- PREVENTION OF MINE ACCIDENTS. E. & M. J., vol. 86, p. 1088. 21 columns.
- ACCIDENTS: Preventative Measures. P. C. M. & M. Soc. S. A., vol. 9, p. 247. $1\frac{1}{2}$ columns.

- SAFETY MEASURES IN MINING.** By Donald Macaulay and L. G. Irvine. P. C. M. & M. Soc. S. A., vol. 6, p. 148, 17 columns; p. 197, 3 columns; p. 226, 4 columns; p. 251, 4 columns; p. 292, 32½ columns; p. 336, 5½ columns; p. 369, 1 column; vol. 7, p. 10, 3½ columns; p. 36, 15 columns; p. 76, 14 columns; p. 111, 18 columns; p. 159, 32 columns.
- TO PREVENT BLOWN-OUT SHOTS.** P. C. M. & M. Soc. S. A., vol. 9, p. 319. 2 columns.
- See also **BLASTING IN MINES.**
- HOW EUROPEAN COLLIERIES ARE SAFEGUARDED.** E. & M. J., vol. 89, p. 829. 7½ columns.
- AUTOMATIC PROTECTIVE SWITCH GEAR FOR COLLIERY SERVICE.** By E. B. Wedmore. T. I. M. E., vol. 38, p. 416. 14 pages. I.
- THE BENNETT SAFETY GEAR.** By S. G. Bennett. T. I. M. E., vol. 38, p. 647. 6 pages. I.
- WHITE WASHING A COAL MINE.** By S. Reynolds. M. & M., vol. 30, p. 16. 2 columns.
- LEVYING OF A FINE FOR EVERY FATAL ACCIDENT.** E. & M. J., vol. 87, p. 300. 1 column.
- TESTING ROOFS IN MINES.** P. C. M. & M. Soc. S. A., vol. 8, p. 48. ½ column.
- See also **FALLS OF ROOF AND WALLS IN MINES.**
- GOOD TIMBERING AND DEATH RATE.** P. C. M. & M. Soc. S. A., vol. 8, p. 133. ¼ column.
- See also **MINE SUPPORT.**
- SAFE USE OF ELECTRICITY IN COAL MINING.** By G. R. Wood. E. & M. J., vol. 88, p. 19. 7½ columns.
- ELECTRIC SHOCKS IN COAL MINES.** By S. F. Walker. E. & M. J., vol. 90, p. 725. 15 columns.
- See also **CAUSE OF ACCIDENTS, AND ELECTRICITY IN THE MINE.**
- PREVENTION OF SHOCKS IN COAL MINES.** E. & M. J., vol. 90, p. 728. ¾ column.
- AUTOMATIC FIRE PROTECTION.** By W. A. Neracher. P. E. Soc. W. Pa., vol. 24, p. 321. 17 pages.
- MEANS OF PREVENTING MINE FIRES.** M. & M., vol. 31, p. 274. 1 column.
- See also **MINE FIRES.**
- ON SAFETY APPLIANCES AND PRECAUTIONS NECESSARY IN MINES.** By J. R. Godfrey. T. Au. I. M. E., vol. 6, p. 1. 33 pages. I.
- THE PREVENTION OF MINE ACCIDENTS: Report of Committee to American Mining Congress.** E. & M. J., vol. 90, p. 601. 19 columns.
- SAFETY IN MINES AND MILLS.** E. & M. J., vol. 90, p. 11. 2 columns.
- SAFETY PRECAUTIONS IN ALABAMA COAL MINES.** E. & M. J., vol. 88, p. 780. 1 column.
- SAFETY PRECAUTIONS IN ALABAMA COAL MINES.** By E. H. Cox. E. & M. J., vol. 89, p. 1165. 9½ columns. I.
- SAFETY APPLIANCES IN GERMAN MINES.** By R. W. Voigt. M. & M., vol. 30, p. 460. 3 columns. I.
- See also **SAFETY CATCHES FOR MINE CAGES AND SHAFT-CLOSING ARRANGEMENTS.**
- See also **OVERWINDING AND ITS PREVENTION, AND SAFETY CATCHES FOR MINE CAGES.**
- See also **MINE SUPPORT: Conditions Affecting.**
- See also **COST OF DAMS, etc.**

Rescue Work in Mines

- RESCUE WORK IN MINES.** Min. & Sci. Press, vol. 98, p. 349. 2 columns. I.
- MINE RESCUE WORK.** Min. & Sci. Press, vol. 101, p. 81. 7 columns. I.
- RESCUE WORK IN MINES.** P. C. M. & M. Soc. S. A., vol. 7, p. 100. 1¼ columns.
- RESCUE WORK AT HAMSTEAD COLLIERY.** By D. J. Pierce. E. & M. J., vol. 86, p. 5. 1½ columns. I.

- RESCUE WORK AFTER MINE EXPLOSIONS.** E. & M. J., vol. 90, p. 82. $3\frac{1}{2}$ columns.
- RESCUE WORK AT THE ST. PAUL MINE, CHERRY, ILLINOIS.** E. & M. J., vol. 88, p. 1073. $1\frac{1}{2}$ columns.
- THE POSSIBILITIES OF RESCUE WORK IN CONNECTION WITH MINE EXPLOSIONS AND FIRES.** By J. S. Haldane. T. I. M. E., vol. 39, p. 458. 27 pages. I.
- RESCUING THE MEN ENTOMBED AT ALPHA SHAFT NEAR ELY, NEVADA.** By E. W. Walter. E. & M. J., vol. 85, p. 407. $3\frac{1}{2}$ columns.
- TO AVOID RESCUE WORK.** M. & M., vol. 30, p. 593. 1 column.
- PROVISIONS FOR MINE RESCUE IN BRITISH COLUMBIA.** E. & M. J., vol. 90, p. 201. 1 column.
- COLLIERY RESCUE BRIGADES IN GREAT BRITAIN.** M. & M., vol. 31, p. 667. $\frac{1}{2}$ column.
- SUGGESTIONS FOR THE ORGANIZATION OF COLLIERY RESCUE BRIGADES.** By Sgt. A. T. Winborn. T. I. M. E., vol. 37, p. 81, 19 pages. I.; p. 294, 20 pages.
- THE AEROLITH RESCUE APPARATUS.** M. & M., vol. 31, p. 521. $3\frac{1}{2}$ columns. I.
- A NEW BREATHING APPARATUS.** M. & M., vol. 31, p. 759. $2\frac{1}{2}$ columns. I.
- TISSOT BREATHING APPARATUS FOR RESCUE WORK.** By H. Briggs. E. & M. J., vol. 89, p. 1027. $7\frac{1}{2}$ columns. I.
- AEROLITH BREATHING APPARATUS.** By Alfred Gradenwitz. E. & M. J., vol. 85, p. 105. 2 columns. I.
- THE WEG BREATHING APPARATUS.** E. & M. J., vol. 85, p. 366. 2 columns. I.
- BREATHING APPLIANCES FOR MINES.** P. C. M. & M. Soc. S. A., vol. 8, p. 65. 2 columns.
- ROYAL COMMISSION ON MINES AND BREATHING APPARATUS.** P. C. M. & M. Soc. S. A., vol. 8, p. 94. 3 columns.
- POINTS IN BREATHING APPARATUS.** P. C. M. & M. Soc. S. A., vol. 8, p. 397. $\frac{1}{2}$ column.
- REQUIREMENTS OF A BREATHING APPARATUS FOR USE IN MINES.** By W. E. Mingramm. T. A. I. M. E., vol. 39, p. 341. $9\frac{1}{2}$ pages. I.
- THE USE OF BREATHING APPARATUS AT A MINE FIRE IN CAPE BRETON, WITH SOME NOTES ON THE CENTRAL RESCUE STATION OF THE DOMINION COAL COMPANY, LIMITED, AT GLACE BAY, CAPE BRETON, NOVA SCOTIA.** By F. W. Gray and James McMahon. T. I. M. E., vol. 37, p. 100. 18 pages.
- BREATHING APPARATUS FOR USE IN MINES: Discussion.** T. I. M. E., vol. 36, p. 53. 3 pages.
- RESPIRATION DEVICES FOR MINES: The Artificial Regeneration of Air for Respiration in Life-Saving Apparatus for Mining Service.** P. C. M. & M. Soc. S. A., vol. 5, p. 191. 2 columns.
- SELF-CONTAINED RESPIRATING APPARATUS IN MINES.** By A. E. Davidson. M. & M., vol. 29, p. 118. $\frac{1}{2}$ column.
- OXYGEN HELMETS USED AT MINE FIRES.** By O. Callidge. M. & M., vol. 30, p. 712. 1 column.
- OXYGEN HELMETS USED AT MINE FIRE.** By T. A. Carraher. M. & M., vol. 31, p. 161. $1\frac{1}{2}$ columns. I.
- LIQUID OXYGEN FOR RESCUE WORK IN COAL MINES.** By A. Gradenwitz. E. & M. J., vol. 88, p. 923. $4\frac{1}{2}$ columns. I.
- TESTS OF LIFE-SAVING APPLIANCES FOR MINES.** By R. Grimshaw. E. & M. J., vol. 87, p. 1192. 2 columns.
- RESCUE APPARATUS IN AUSTRIAN MINES.** E. & M. J., vol. 87, p. 414. $\frac{1}{2}$ column.
- RESCUE APPARATUS FOR MINES.** E. & M. J., vol. 86, p. 8. $1\frac{1}{2}$ columns.
- RESCUE APPARATUS IN COAL MINES.** By W. E. Mingramm. E. & M. J., vol. 85, p. 900. 5 columns. I.

- RESCUE APPARATUS FOR USE IN COAL MINES.** P. C. M. & M. Soc. S. A., vol. 8, p. 160. 2½ columns.
- RESCUE APPLIANCES: Lessons from Glencoe.** By H. Kestner. P. C. M. and M. Soc. S. A., vol. 8, p. 306, 11 columns, I.; p. 385, 1 column; vol. 9, p. 21, ¾ column; p. 41, 8½ columns, I.
- ON THE PRACTICAL USE AND VALUE OF COLLIERY RESCUE: Apparatus, and the Organization of Rescue Corps.** By Geo. B. Walker. T. I. M. E., vol. 36, p. 536. 19 pages.
- DRÆGER LIFE-SAVING APPARATUS IN A MINE FIRE.** Min. & Sci. Press, vol. 97, p. 401. ¾ column.
- A NEW SMOKE HELMET FOR MINE-FIRE FIGHTING.** M. & M., vol. 31, p. 281. ½ column. I.
- THE ANACONDA FIRE HOOD.** By R. N. Bell. M. & M., vol. 29, p. 175. 2 columns. I.
- See also **MINE FIRES.**
- THE ANACONDA PROTECTIVE HOOD.** By R. N. Bell. E. & M. J., vol. 86, p. 708. 2 columns. I.
- REGENERATION OF AIR FOR SUBMARINES WITH FUSED SODIUM PEROXIDE.** P. C. M. & M. Soc. S. A., vol. 7, p. 51. 1 column.
- EUROPEAN LAWS REGARDING BREATHING APPARATUS.** M. & M., vol. 31, p. 413. ¾ column.
- COAL COMPANIES ESTABLISH RESCUE STATIONS.** E. & M. J., vol. 87, p. 951. 2 columns.
- MINE RESCUE LABORATORY.** By R. Y. Williams. M. & M., vol. 29, p. 537. 2 columns. I.
- AN ENGLISH RESCUE STATION.** M. & M., vol. 29, p. 100. 3 columns. I.
- MINE RESCUE STATIONS AND MINE ACCIDENTS.** E. & M. J., vol. 89, p. 281. 4 columns.
- RESCUE STATION AT LEISENRING No. 1.** By C. B. Franks. M. & M., vol. 30, p. 599. 2½ columns.
- RESCUE STATIONS IN ILLINOIS.** By R. Y. Williams. M. & M., vol. 31, p. 214. 5 columns. I.
- MINE RESCUE STATIONS IN ILLINOIS.** By R. Y. Williams. E. & M. J., vol. 90, p. 176. 7½ columns. I.
- RESCUE STATIONS IN ILLINOIS COAL-MINING LOCALITIES.** By R. Y. Williams. J. W. Soc. E., vol. 15, p. 655. 23½ pages. I.
- See also **PROTECTION IN MINING.**
- Compensation for Injuries**
- MINER'S ACCIDENT RELIEF FUND.** E. & M. J., vol. 90, p. 25. ¾ column.
- COMPENSATION TO WORKERS FOR ACCIDENTAL INJURIES.** By M. M. Duncan. E. & M. J., vol. 88, p. 519. 4½ columns.
- COMPENSATION FOR INDUSTRIAL ACCIDENTS.** By D. Ross. Min. & Sci. Press, vol. 101, p. 744. 5½ columns.
- COMPENSATION TO WORKMEN IN CASE OF INJURIES.** By M. M. Duncan. T. L. S. M. I., vol. 14, p. 47. 6 pages.
- COMPENSATION FOR INJURY.** By R. P. Tarr. M. & M., vol. 31, p. 410. 6½ columns.
- TAX FOR COMPENSATION TO INJURED.** P. C. M. & M. Soc. S. A., vol. 9, p. 246. Note.
- See also **WORKMAN'S AID, COMPENSATION AND INSURANCE.**
- MINER'S BENEFIT FUND.** E. & M. J., vol. 90, p. 1013. ½ column.
- HOMESTAKE AID FUND.** E. & M. J., vol. 90, p. 309. 1¾ columns.
- INSURANCE AND MINE ACCIDENTS.** By G. W. Traer. Min. & Sci. Press, vol. 99, p. 717. 2 columns.
- ACCIDENT LIABILITY AND COMPENSATION.** E. & M. J., vol. 90, p. 23. 1¼ columns.
- INDUSTRIAL ACCIDENTS AND EMPLOYEES LIABILITY LAWS.** By D. Ross. Min. & Sci. Press, vol. 99, p. 716. 2½ columns.

LIABILITY FOR INDUSTRIAL ACCIDENTS.

By Sion B. Smith. M. & M., vol. 31, p. 501. 5 columns.

POSSIBILITIES OF A NEW LIABILITY

LAW. By S. Reynolds. M. & M., vol. 31, p. 532. 7½ columns.

See also **WORKMEN'S AID, COMPENSATION AND INSURANCE.**

First Aid in Mining Accidents**FIRST AID TO THE INJURED IN COAL MINES.** By M. J. Shields.

Coal Mining Supplement, E. & M. J., vol. 88, p. 42. 8 columns. I.

FIRST AID FOR INJURED SPINES. By T. C. Harvey. M. & M., vol. 31, p. 538. 1¼ columns. I.**SUGGESTIONS FOR ORGANIZED UNDERGROUND AMBULANCE WORK.** T. I. M. E., vol. 37, pp. 42-44, 218-223.**FIRST-AID CORPS IN ALABAMA COAL MINES.** E. & M. J., vol. 89, p. 1166. ½ column.**WILL FIRST AID CORPS LAST?** M. & M., vol. 29, p. 407. 1 column.**ORGANIZATION OF FIRST-AID CORPS.** By M. J. Shields. M. & M., vol. 29, p. 379. 3½ columns.**FIRST-AID WORK IN NEW SOUTH WALES.** M. & M., vol. 30, p. 366. ⅔ column.**THE FIRST AID MOVEMENT.** By H. H. Stoek. M. & M., vol. 29, p. 243. 11 columns. I.**FIRST-AID WORK AT COAL MINES.** By J. H. Ketner. M. & M., vol. 31, p. 490. 2 columns. I.**METHODS OF RESUSCITATION.** P. C. M. & M. Soc. S. A., vol. 10, p. 303. 2 columns.**RESUSCITATION AFTER ELECTRIC SHOCK.** M. & M., vol. 30, p. 91. 1¼ columns.

See also **CAUSE OF ACCIDENTS, AND ELECTRICITY IN THE MINE.**

APPARATUS FOR CONVEYING WOUNDED MEN FROM STOPES. E. & M. J., vol. 89, p. 1263. 1 column. I.

See also **HEALTH OF MINERS.**

FIRST-AID CONTEST AT INKERMANN. M. & M., vol. 30, p. 225. 3 columns. I.**FIRST-AID CONTEST.** By C. A. Graves. M. & M., vol. 29, p. 172. 2 columns. I.**FIRST-AID CONTESTS.** M. & M., vol. 31, p. 197. 8½ columns. I.**READING FIRST-AID FIELD DAY.** By H. H. Stoek. M. & M., vol. 30, p. 121. 4 columns. I.

See also **PROTECTION IN MINING.**

Falls of Roof and Walls in Mines**FALLS IN SHAFTS: Shaft Accidents.** By F. H. Wynne. T. I. M. E., vol. 38, p. 653. 18 pages.**FALL OF LABORER DOWN THE RED JACKET SHAFT.** E. & M. J., vol. 90, p. 749. Note.**WARRIOR RUN MINE ACCIDENT.** M. & M., vol. 29, p. 121. 2 columns. I.**ACCIDENTS CAUSED BY FALL OF ROCK AND COAL.** E. & M. J., vol. 88, p. 412. ½ column.**ACCIDENTS CAUSED BY FALLING ROCK IN METAL MINES.** E. & M. J., vol. 87, p. 301. 1⅓ columns.**SUMMARY OF THE "REPORT OF A COMMITTEE APPOINTED BY THE ROYAL COMMISSION ON MINES TO INQUIRE INTO THE CAUSES OF AND MEANS OF PREVENTING ACCIDENTS FROM FALLS OF GROUND, UNDERGROUND HAULAGE, AND IN SHAFTS: Shaft Accidents.** By F. H. Wynne. T. I. M. E., vol. 38, p. 653. 18 pages.**SUMMARY OF THE "REPORT OF A COMMITTEE APPOINTED BY THE ROYAL COMMISSION ON MINES TO INQUIRE INTO THE CAUSES OF AND MEANS OF PREVENTING ACCIDENTS FROM FALLS OF GROUND, UNDERGROUND HAULAGE, AND IN SHAFTS," Part II: Falls of Roof and Sides.** By W. Charlton and F. H. Wynne. T. I. M. E., vol. 39, p. 378. 20 pages.

THE ALPHA SHAFT DISASTER. By W. S. Larsh. M. & M., vol. 29, p. 104. 4 columns. I.

See also **SUBSIDENCE IN MINE WORKINGS.**

See also **CAUSE OF ACCIDENTS.**

Inundation in Mines

DANGER OF INRUSHES OF SURFACE WATER. E. & M. J., vol. 90, p. 973. 4½ columns. I.

TAPPING MINE WATER UNDER GREAT PRESSURE. By Robert Sibley. E. & M. J., vol. 85, p. 562. 9½ columns. I.

FLOOD DAMAGE AT THE GREAT FALLS SMELTER, MONTANA. By F. S. Shewell. Min. & Sci. Press, vol. 97, p. 57. 2½ columns. I.

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SHOT-FIRING IN COAL MINES: Suggestions. By J. J. Rutledge. E. & M. J., vol. 87, p. 13. $2\frac{1}{2}$ columns.

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THE SHOT-FIRER'S DUTIES. E. & M. J., vol. 87, p. 244. $1\frac{1}{4}$ columns.

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HANG FIRES: Delayed Shots. By W. Maurice. Min. & Sci. Press., vol. 96, p. 300. $1\frac{1}{2}$ columns.

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METHOD OF CHARGING PERMISSIBLE EXPLOSIVES. E. & M. J., vol. 89, p. 671. $1\frac{3}{4}$ columns.

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PREPARATIONS FOR BLASTING. By M. T. Hoster. E. & M. J., vol. 89, p. 1006. $2\frac{3}{4}$ columns.

BLASTING AND PREPARING THE SHOT. By D. H. Stovall. Min. & Sci. Press, vol. 98, p. 699. $1\frac{1}{2}$ columns.

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THE INDUSTRIAL OUTLOOK FOR PHYSICAL CHEMISTRY. By A. Sang. P. E. Soc. W. Pa., vol. 23, p. 32. 15 pages.

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- GRADING ANALYSES AND THEIR APPLICATION.** By H. Stadler. P. C. M. & M. Soc. S. A., vol. 10, p. 382. 16½ columns. I.
- GRADING ANALYSES AND THEIR APPLICATION.** By H. Stadler. T. I. M. & M., vol. 19, p. 471. 15 pages. I.
- SOURCES OF ERROR IN ANALYSES.** By R. C. Benner. Min. & Sci. Press, vol. 100, p. 492. 4 columns. I.
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- MINE LABORATORY WORK AT GARY, WEST VIRGINIA.** By V. Klier. M. & M., vol. 31, p. 217. 3½ columns. I.
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- NEW METHODS FOR THE PREPARATION OF HYDROGEN SULPHIDE.** P. C. M. & M. Soc. S. A., vol. 7, p. 371. 1 column.
- THE ANALYSES OF SOME WITWATERS-RAND SOILS.** By E. H. Croghan. P. C. M. & M. Soc. S. A., vol. 5, p. 18, 7 columns; p. 79, 6 columns; p. 97, 6 columns.
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- THIOCYANATE DETERMINATION OF COPPER. By W. Tsukakaski. E. & M. J., vol. 90, p. 969. 1½ columns.
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- THE ELECTROLYTIC DETERMINATION OF COPPER AT TENNESSEE COPPER COMPANY. By T. W. Cavers and J. P. Chadwick. E. & M. J., vol. 89, p. 954. 3 columns.
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- RAPID METHOD FOR DETERMINING COPPER IN SLAGS. By F. D. Aller. E. & M. J., vol. 88, p. 1278. 1¼ columns.
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- See also METALLURGY OF COPPER.
- ### Electrolytic Analysis
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- ELECTROCHEMICAL ANALYSIS WITH ROTATING ANODES. E. & M. J., vol. 85, p. 956. 2 columns.
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- ANALYSES OF THE CLINTON IRON-ORES, HUNTINGDON COUNTY, PENNSYLVANIA. T. A. I. M. E., vol. 40, p. 143. 2 pages. Tables.
- ANALYSES OF CLINTON OOLITIC IRON-ORE, NEW YORK STATE. T. A. I. M. E., vol. 40, p. 174. Table.

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THE FERRITES, COMPOUNDS OF AN IRON ACID. By J. S. C. Wells. E. & M. J., vol. 86, p. 420. 6 columns.

COMPRESSED AIR IN MINING

General

SIMPLE PROBLEMS IN AIR-COMPRESSSION. By E. A. Rix. Min. & Sci. Press, vol. 96, p. 394. 7½ columns.

COMPRESSED AIR CALCULATION SHORT CUTS. By S. B. Redfield. E. & M. J., vol. 88, p. 1163. 3½ columns. D.

STORING COMPRESSED AIR IN A NATURAL ROCK RECEIVER. E. & M. J., vol. 89, p. 406. 1 column.

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See also COMPRESSED AIR PUMPING AND COMPRESSED AIR HAULAGE.

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TEST ON A MODERN AIR-COMPRESSING PLANT AT THE LONG TUNNEL GOLD MINE, WALHALLA, AUSTRALIA. By E. J. Rigby. T. Au. I. M. E., vol. 5, p. 259. 17 pages. I.

LOSS OF OXYGEN IN HYDRAULIC AIR COMPRESSION. By O. H. Landreth. E. & M. J., vol. 90, p. 508. 1 column.

STEAM CONSUMPTION OF AIR COMPRESSORS. By W. A. Macleod and J. P. Wood. T. Au. I. M. E., vol. 12, p. 165. 16 pages. D.

POWER AT COBALT. E. & M. J., vol. 88, p. 171. 1½ columns.

INEFFICIENCY OF COMPRESSED AIR SYSTEM, RAND MINES. E. & M. J., vol. 85, p. 549. 1½ columns.

THE TRANSMISSION OF POWER BY COMPRESSED AIR IN MINES. By R. W. Chapman. T. Au. I. M. E., vol. 10, p. 309. 17 pages.

See also POWER TRANSMISSION, ETC.

See also COMPRESSED AIR PUMPING.

See also CYANIDING GOLD, ETC., and COST OF POWER.

Air Compressors, Types, Operation, Etc.

SMALL AIR COMPRESSORS AT MINES. M. & M., vol. 31, p. 477. 1 column.

TWO-STAGE AIR-LIFT COMPRESSOR. Min. Mag., vol. 4, p. 141. 1 column. I.

CENTRIFUGAL AIR COMPRESSOR. M. & M., vol. 29, p. 279. 1½ columns. I.

TURBOBLOWERS AND COMPRESSORS. M. & M., vol. 31, p. 285. 3 columns. I.

AIR COMPRESSING MACHINERY. By J. Savaas. T. Au. I. M. E., vol. 8, pt. 2, p. 215. 12½ pages. I.

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IMPROVEMENTS IN COMPRESSOR VALVES. E. & M. J., vol. 88, p. 915. 2½ columns. I.

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Hydraulic Air Compression and Compressors

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Compressed Air Haulage

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Explosion in Air Compressors, Diseases, Etc.

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CLAYS AND THEIR USES

General

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Properties of Clays and Methods of Testing

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SAND-LIME BRICK INDUSTRY. By S. V. Peppel. U. S. G. S., Mineral Resources, 1903. 23 pages.

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CONCENTRATION

General

CONCENTRATION METHODS EMPLOYED IN AUSTRALIA. T. Au. I. M. E., vol. 12, p. 105. 26 pages. Flow sheets.

ORE CONCENTRATION. P. C. M. & M. Soc. S. A., vol. 8, p. 393. 2 columns.

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CALCULATION OF RECOVERY IN CONCENTRATION. By T. J. Hoover. E. & M. J., vol. 89, p. 1234. 4 columns.

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See also COST OF MILLING.

Preparation of Coal

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COAL-TESTING IN THE UNITED STATES. P. C. M. & M. Soc. S. A., vol. 7, p. 193. 4 columns.

See also TESTING PLANTS.

COAL WASHERY PLANT CONTROL. By G. R. Delamater. M. & M., vol. 30, p. 55. 7 columns. I.

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A NEW SEPARATOR FOR THE REMOVAL OF SLATE FROM COAL. By W. S. Ayres. T. A. I. M. E., vol. 40, p. 648. 7 pages. I.

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WOODEN JIG GRATES IN THE JOPLIN DISTRICT. By O. Ruhl and F. Sansom. E. & M. J., vol. 88, p. 1025. $3\frac{1}{4}$ columns. I.

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Hand Dressing, Sorting

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SORTING ORE BY HAND. By L. D. Huntoon. E. & M. J., vol. 88, p. 964. $3\frac{1}{3}$ columns.

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- ELECTRO-CHEMICAL AMALGAMATION.** By D. F. McGrow. Min. & Sci. Press, vol. 98, p. 897. $1\frac{1}{2}$ columns.
- ELECTRO-CHEMICAL AMALGAMATION.** P. C. M. & M. Soc. S. A., vol. 10, p. 26. 3 columns.
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- Flow-Sheets**
- FLOW-SHEET OF REPORTS.** E. & M. J., vol. 89, p. 1217. $\frac{1}{2}$ column. D.
- FLOW-SHEET OF ASBESTOS TREATMENT IN QUEBEC.** J. C. M. I., vol. 13, p. 413. I.
- See also **OCCURRENCE OF ASBESTOS.**
- FLOW-SHEET OF THE BEAVER BROOK BREAKER.** M. & M., vol. 30, p. 707. D.
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Use of Plates in Amaigamation

NOTES ON THE SCALING AND SWEATING OF COPPER BATTERY PLATES. By S. F. Goddard. T. I. M. & M., vol. 18, p. 495. 4 pages.

THE SILVER COATING OF AMALGAMATING PLATES. P. C. M. & M. Soc. S. A., vol. 9, p. 142. 2 columns. I.

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A NEW AMALGAMATING PAN. Min. & Sci. Press, vol. 20, p. 209. 3 columns. I.

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THE PIERCE AMALGAMATOR. E. & M. J., vol. 85, p. 112. 1 column. I.

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AN ELECTROMAGNET FOR TESTING THE SUITABILITY OF AN ORE FOR MAGNETIC SEPARATION. By L. H. L. Huddart. E. & M. J., vol. 85, p. 1008. 1½ columns. I.

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THE MAGNETIC PROPERTIES OF IRON AND STEEL AT LIQUID AIR TEMPERATURES. By C. C. Trowbridge. Sch. Mines Quart., vol. 24, p. 72. 12 columns. I.

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THE GRÖNDAL PROCESS OF CONCENTRATING IRON ORES. By P. McN. Bennie. J. C. M. I., vol. 11, p. 189. 14 pages. I. Maps.

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MAGNET USED IN THE SEPARATION OF TIN-OXIDE FROM WOLFRAM. T. I. M. & M., vol. 17, p. 157. Note. I.

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A SUSPENDED FRAME FRUE VANNER. By G. B. Shipley. E. & M. J., vol. 85, p. 415. 1 column. I.

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THE MEXICAN PLANILLAS. *E. & M. J.*, vol. 90, p. 353. 1 column. I.

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ORE CONCENTRATOR. *Min. & Sci. Press*, vol. 22, p. 161. 1 column. I.

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Washing Coal and Mineral

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A MODERN COAL WASHERY IN NEW MEXICO. *E. & M. J.*, vol. 86, p. 182. $6\frac{1}{2}$ columns.

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See also TESTING FUELS AND THEIR VALUE.

DAWSON COAL WASHING PLANT, NEW MEXICO. *M. & M.*, vol. 29, p. 91. 2 columns. I.

A NEW COAL WASHERY IN MICHIGAN. By Lee Fraser. *E. & M. J.*, vol. 87, p. 993. $3\frac{1}{2}$ columns. I.

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BARITE WASHING. T. A. I. M. E.,
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THE DISPOSAL OF RESIDUES AT KAL-
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By H. W. MacFarren. Min. & Sci.
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- THE CHAPMAN CLASSIFIER.** E. & M. J., vol. 89, p. 917. I.
- PIPE CLASSIFIER:** Used at the Bunker Hill and Sullivan Mill. Min. & Sci. Press, vol. 100, p. 121. 2 columns. I.
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- THE JAMES SLIMER.** By M. T. Hoster. E. & M. J., vol. 86, p. 1149. $1\frac{1}{2}$ columns. I.

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SLIME TREATMENT AT KALGOORLIE. By M. W. Von Bernewitz. Min. & Sci. Press, vol. 95, p. 743. 2 columns. I.

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SLIME TREATMENT IN THE GUANAJUATO CYANIDE MILLS. E. & M. J., vol. 86, p. 998, 2 columns; p. 1001, $1\frac{1}{4}$ columns.

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See also **CYANIDING OF ORES.**

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See also **CONCENTRATORS, TABLES, BUDDLES, ETC.**

See also **FINE CRUSHING BY MILLS.**

See also **COST OF CYANIDING.**

See also **CYANIDING GOLD, ETC., and COST OF MILLING.**

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CONCRETE, MORTARS, AND PLASTERS

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- BONDING NEW TO OLD CONCRETE. P. C. M. & M. Soc. S. A., vol. 10, p. 156. ¾ column.
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- STRENGTH OF CONCRETE BEAMS. By R. L. Humphrey. U. S. G. S., Bull. 344. 59 pages. 1908.
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- HOW TO PREVENT FAILURE IN CONCRETE CONSTRUCTION. By W. Michaelis. J. W. Soc. E., vol. 12, p. 455. 18 pages.
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- FILBERT MINE CONCRETE-LINED SHAFTS. By A. F. Allard and H. S. Patterson. M. & M., vol. 30, p. 557. 17 columns. I.
- SINKING CONCRETE SHAFTS IN QUICKSAND. By F. W. Adgate. E. & M. J., vol. 88, p. 1159. 9½ columns. I.
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- METHOD OF SINKING AND CONCRETING THE FILBERT MINE, PENNSYLVANIA. M. & M., vol. 30, p. 558. 4 columns. I.
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- THE USE OF CEMENT FOR TUBBING IN DEEP SHAFTS. E. & M. J., vol. 86, p. 427. 1 column.
- CONCRETE-STEEL CAISSONS: Their Development and Use for Breakwater, Piers and Revetments. By W. V. Judson. J. W. Soc. E., vol. 14, p. 533. 76 pages. I.
- NORTH LAKE CONCRETE SHAFT AND FOUNDATION FOR STEEL HEADFRAME. E. & M. J., vol. 88, p. 722. 1 column. I.
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- See also TUNNEL SUPPORT.
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- USE OF CONCRETE IN THE CLONAN SHAFT, MINEVILLE, NEW YORK. By G. C. Stoltz. E. & M. J., vol. 85, p. 111. 1½ columns.
- CONCRETE FOR SHAFT TRACKS. P. C. M. & M. Soc. S. A., vol. 10, p. 415. ¾ column.
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- THE USE OF CONCRETE FOR MINE SUPPORT. By W. R. Crane. T. I. M. E., vol. 37, p. 560. 26 pages. I.
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- CONCRETE MINE PROPS USED IN GERMANY. E. & M. J., vol. 88, p. 414. 1 column. I.
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- CAPACITY OF CIRCULAR VATS PER FOOT OF DEPTH. By W. A. Caldecott. Min. & Sci. Press, vol. 101, p. 412. Table.

A CONCRETE TANK TO STORE TAILING. Min. & Sci. Press, vol. 95, p. 337. $1\frac{1}{2}$ columns. I.

CEMENT CONCRETE VATS AND TANKS. By A. Mayer. M. & M., vol. 31, p. 364. $\frac{1}{2}$ column.

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CONVEYOR SYSTEM AT THE NEW KLEINFONTEIN MINE. By E. J. Way. E. & M. J., vol. 85, p. 888. $13\frac{1}{2}$ columns. D.

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- COST OF COMPRESSED AIR MOTORS FOR GATHERING CARS IN MINES.** T. A. I. M. E., Albany Meeting, Feb., 1903, p. 4. Table.
- ESTIMATED COST OF A COMPRESSED-AIR ROAD IN THE UNITED STATES.** T. A. I. M. E., vol. 19, p. 561.
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- COST OF TAIL-ROPE HAULAGE.** Miner's Pocket Book, Lock, pp. 293, 294. Tables.
- COST OF INSTALLATION, MAINTENANCE AND OPERATION OF TAIL-ROPE SYSTEM OF HAULAGE.** E. & M. J., vol. 74, p. 679.
- COMPARATIVE COSTS OF HAULAGE BY CHAINS AND WIRE ROPE.** E. & M. J., vol. 33, p. 278. Table.
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- COST OF HAULAGE BY GASOLINE MOTORS AND BY MULES.** M. & M., vol. 31, p. 630. Table.
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- COMPARATIVE COST OF LOCOMOTIVE AND MULE HAULAGE.** E. & M. J., vol. 6, p. 154. Tables.
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- WORKING AND MAINTENANCE COSTS, FOR ENGINE PLANE, ENGLAND, 1880-83.** T. N. S. I. M. & M. E., vol. 6, p. 107. Tables.
- METHOD OF ASCERTAINING MAINTENANCE COST PER MILE OF ENGINE PLANE PER YEAR.** T. N. S. I. M. & M. E., vol. 6, p. 109.
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- COST OF TRACK LAYING IN AN ENTRY OF GIVEN LENGTH.** M. & M., vol. 19, p. 474. Table.

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Cost of Hoisting

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Cost of Hydraulic Mining

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- COST OF LABOR AT BISBEE COPPER MINES, ARIZONA. M. & M., vol. 27, p. 293. $\frac{1}{4}$ column.
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- LABOR COSTS AT CAMP BIRD MINE. Sch. Mines Quart., vol. 24, p. 64. Table.
- LABOR COST AT CAMP BIRD MINE, OURAY, COLORADO. T. A. I. M. E., vol. 33, p. 526. Table.
- COMPARATIVE RATES FOR LABOR AT THE MINES OF BOULDER AND CRIPPLE CREEK, COLORADO. T. I. M. E., vol. 19, p. 334.
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- LABOR COST AT WARDNER, IDAHO. Rept. Zinc Comm., Canada, p. 43.
- LABOR COSTS IN A STAMP MILL IN IDAHO. Ore Dressing, Richards, vol. 2, p. 112. Table.
- LABOR COST IN NORTHERN IDAHO. Ore Dressing, Richards, vol. 2, p. 1130. Table.
- LABOR COSTS IN THE MALAY PENINSULA TIN MINES. Tin Deposits of the World, pp. 59 and 64. Table.
- LABOR COST IN TIN MINES OF SPAIN. Tin Deposits of the World, p. 151. Table.
- LABOR COSTS IN DRESSING TIN ORES AT MOUNT BISCHOFF. Tin Deposits of the World, p. 172.
- WAGE SCALE IN THE JOPLIN REGION. M. & M., vol. 28, p. 156. Table.
- LABOR COSTS, MISSOURI LEAD AND ZINC MINES. Ore Dressing, Richards, vol. 2, p. 1129. Table.
- LABOR COSTS IN THE LEAD AND ZINC MINES OF THE JOPLIN DISTRICT. Univ. Geol. Sur. of Kans., vol. 8, pp. 350, 377, etc. Table.
- LABOR COSTS IN THE JOPLIN DISTRICT, MISSOURI. E. & M. J., vol. 84, p. 1119. $\frac{1}{2}$ column.
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- LABOR COSTS AT THE BALTIC MILL, LAKE SUPERIOR. T. I. M. & M., vol. 14, p. 193. Table.
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- LABOR COSTS IN COAL MINES OF MONTANA, 1908. E. & M. J., vol. 85, p. 1058. 1 column. Table.
- COST OF MINE LABOR, BUTTE, MONTANA. M. & M., vol. 21, p. 158. Table.
- COST OF MINE LABOR, ROSSLAND, BRITISH COLUMBIA. M. & M., vol. 21, p. 367. Table.
- COST OF HAULAGE SYSTEM EMPLOYED AT THE COTTONWOOD MINE, MONTANA. M. & M., vol. 19, p. 276. Table.
- LABOR COST AT THE NEW SODDY COAL COMPANY, TENNESSEE HAULAGE SYSTEM. M. & M., vol. 19, pp. 534, 535.
- LABOR COST, KELLY, NEW MEXICO. M. & M., vol. 27, p. 52.
- COST OF LABOR IN THE NEW YORK HEMATITE MINES. E. & M. J., vol. 82, p. 555. $\frac{3}{4}$ column.
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- LABOR COSTS IN EASTERN OREGON. M. & M., vol. 19, p. 15.
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Cost of Lighting

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- SMELTING RATES ON ORE FROM EUREKA, NEVADA. E. & M. J., vol. 85, p. 1143. $\frac{1}{4}$ column.
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- COST OF THE RIECKEN PROCESS IN WESTERN AUSTRALIA. Gold Min. & Mill., W. Aus., p. 390. Tables.
- See also METALLURGICAL PROCESSES, THEORY, ETC.
- COST OF PLANT AND TREATMENT BY THE GREENAWALT ELECTROLYTIC PROCESS. E. & M. J., vol. 90, p. 1066. Tables.
- See also ELECTRO-METALLURGY.
- COST OF TREATMENT OF SULPHIDE ORE BY PHOENIX PROCESS. T. I. M. & M., vol. 9, p. 396. 2 pages.
- RELATIVE COST OF BRIMSTONE AND PYRITES FOR ACID MAKING. E. & M. J., vol. 37, p. 314. 1 column.
- THE COST OF SMELTING COPPER ORE. By G. F. Beardsley. E. & M. J., vol. 82, p. 397. $2\frac{1}{2}$ columns.
- COST OF TREATMENT OF LOW-GRADE COPPER ORES. T. I. M. E., vol. 26, p. 43. Table.
- APPROXIMATE COST OF PRODUCING COPPER FROM ONE AND TWO FURNACES, IN ARIZONA. Sch. Mines Quart., vol. 6, p. 373. Tables.
- CALCULATIONS OF COST OF REFINING COPPER ELECTROLYTICALLY. Min. & Sci. Press, vol. 87, p. 254. $\frac{1}{3}$ column.
- COST OF ELECTROLYTIC COPPER REFINING. E. & M. J., vol. 76, p. 740. Table.
- COST OF COPPER, LAKE SUPERIOR. E. & M. J., vol. 43, p. 307. 2 columns.
- COST PER TON OF COPPER MATTE CONVERTING. E. & M. J., vol. 90, p. 464. Table.
- COST AND PROFITS IN PYRITIC SMELTING OF LOW-GRADE COPPER ORES. By F. H. Prentiss. Min. & Sci. Press, vol. 84, p. 255, 2 columns; p. 268, $3\frac{1}{3}$ columns; p. 282, $4\frac{1}{2}$ columns, I.; p. 295, $3\frac{1}{2}$ columns, I.; p. 308, $3\frac{2}{3}$ columns, I.; p. 323, $4\frac{1}{3}$ columns, I.; p. 333, $2\frac{1}{2}$ columns, I.
- COST OF REFINING PIG COPPER. T. A. I. M. E., vol. 10, p. 53.
- COST OF PRODUCTION OF FINE COPPER. E. & M. J., vol. 51, p. 347. $\frac{1}{2}$ column.

- COST OF COPPER IN LAKE SUPERIOR. E. & M. J., vol. 38, p. 374. 2 columns.
- See also REFINING OF COPPER.
- COST OF SMELTING COPPER ORES. T. A. I. M. E., vol. 15, p. 65.
- COSTS OF SMELTING ORE PER TON, CANANEA. E. & M. J., vol. 89, p. 315. Table.
- COSTS OF LAKE SUPERIOR SMELTING. By L. S. Austin. Min. & Sci. Press, vol. 98, p. 392. $3\frac{1}{2}$ columns. Tables.
- COST OF REFINING LAKE SUPERIOR COPPER. E. & M. J., vol. 74, p. 370. $\frac{1}{3}$ column.
- COST OF COPPER SMELTING IN NORWAY. E. & M. J., vol. 74, p. 377.
- See also METALLURGY OF COPPER.
- COST OF LEACHING COPPER ORES IN THE URALS. T. I. M. & M., vol. 19, p. 230, Tables; pp. 259 and 260, Tables.
- COMPARATIVE COSTS OF SMELTING AND CYANIDING ORES IN WESTERN AUSTRALIA. Min. Mag., vol. 11, p. 449.
- SMELTING COST AT MINE LE ROI, BRITISH COLUMBIA. E. & M. J., vol. 88, p. 104. $1\frac{1}{4}$ columns. Table.
- COST OF TREATING THE DRY ORES OF THE SLOCAN. J. C. M. I., vol. 7, pp. 204, 205, 206.
- COST OF TREATMENT AT KALGOORLIE: Roasting and Filterpress Work. E. & M. J., vol. 76, p. 352. Table.
- COST OF PRECIPITATION OF METALS. T. A. I. M. E., vol. 20, pp. 33, 34, 35.
- COST OF PRECIPITATION AND MELTING, MINAS DEL TAJO, CYANIDE PLANT, SINALOA. E. & M. J., vol. 89, p. 569. Table.
- See also CYANIDING GOLD, ETC.
- COST OF CHEMICALS AND TREATMENT BY CHLORINATION IN COLORADO. E. & M. J., vol. 78, p. 670. Table.
- COST OF CHLORINE SMELTING. Min. & Sci. Press, vol. 87, p. 352.
- See also THE CHLORINATION PROCESS.
- COST OF STEEL MAKING IN ALABAMA. E. & M. J., vol. 46, pp. 84 and 125; vol. 47, p. 214.
- COST OF PRODUCING ONE GROSS TON OF COKE PIG-IRON. T. A. I. M. E., vol. 16, p. 200.
- COST OF PRODUCING PIG IRON IN THE UNITED STATES. By W. B. Phillips. E. & M. J., vol. 72, p. 267. 4 pages.
- COST OF MAKING CHARCOAL IRON IN TEXAS. P. E. Soc. W. Pa., vol. 18, p. 65. Table.
- COST OF PRODUCING ONE GROSS TON OF ANTHRACITE PIG-IRON. T. A. I. M. E., vol. 16, p. 200.
- COST OF PRODUCING ONE GROSS TON OF CHARCOAL PIG-IRON. T. A. I. M. E., vol. 16, p. 199.
- APPROXIMATE COST OF PIG-IRON PRODUCED AT DULUTH, CLEVELAND AND CHICAGO. T. A. I. M. E., vol. 16, p. 201.
- CLASSES AND PRICES OF LAKE IRON ORES. E. & M. J., vol. 75, p. 373. $\frac{2}{3}$ column.
- COST OF PIG IRON MADE FROM LAKE SUPERIOR ORES. By J. R. Finlay. E. & M. J., vol. 87, p. 739. $17\frac{1}{4}$ columns.
- COST OF ELECTRIC SMELTING OF IRON ORES. E. & M. J., vol. 82, p. 25. Table.
- See also METALLURGY OF IRON AND STEEL.
- COST OF EXTRACTION OF MERCURY AT ALMADEN. Min. & Sci. Press, vol. 38, p. 38. $1\frac{1}{2}$ columns.
- COST OF TREATMENT OF QUICKSILVER IN THE GUADALCAZAR DISTRICT, MEXICO. T. I. M. & M., vol. 4, p. 143.
- See also METALLURGY OF QUICKSILVER.
- COST OF SILVER SMELTING IN MEXICO. Min. & Sci. Press, vol. 81, p. 285. Table.
- COST OF SMELTING AT SIERRA MOJADA, MEXICO. T. A. I. M. E., vol. 15, pp. 559 and 562.

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COST OF ZINC SMELTING. E. & M. J., vol. 83, p. 1248.

COST OF SMELTING ZINC ORES. Rept. Zinc. Comm., Canada, p. 28. 5 pages.

COST OF ELECTROLYTIC PLANT AND ELECTROLYSIS IN HOEPFNER ZINC PROCESS. E. & M. J., vol. 75, p. 752.

COSTS IN ZINC SMELTING. M. & M., vol. 19, p. 104. Tables.

COST OF PLANT AND OPERATION IN THE HOEPFNER ZINC PROCESS: Electrolytic. E. & M. J., vol. 75, p. 751.

COST OF SMELTING AT JOPLIN, MISSOURI. E. & M. J., vol. 84, p. 863. Tables.

See also METALLURGY OF ZINC.

COST OF LEAD PRODUCTION IN THE SCOTCH HEARTH. E. & M. J., vol. 80, p. 11.

COST OF LEAD SMELTING IN THE UNITED STATES. E. & M. J., vol. 74, p. 208. 1 column.

COST OF LEAD SMELTING BY THE HUNTINGTON-HEBERLEIN PROCESS. E. & M. J., vol. 80, pp. 535, 537, 538. Table.

COST OF ROASTING ARGENTIFEROUS ZINCBLLENDE AND GALENA. E. & M. J., vol. 47, p. 191. Table.

THE COST OF SILVER-LEAD SMELTING. By W. R. Ingalls. E. & M. J., vol. 86, p. 315. 19 columns.

THE COST OF SILVER-LEAD SMELTING. E. & M. J., vol. 86, p. 585. 5 columns.

SMELTING RATES ON SILVER-LEAD ORES. Rept. Zinc. Comm., Canada, p. 72. 2 pages.

COST OF RUNNING OR OPERATING BARTLETT BAG-PROCESS FOR COLLECTING LEAD-FUMES. T. A. I. M. E., vol. 18, p. 698.

See also METALLURGY OF LEAD.

COST OF EXTRACTION OF SULPHUR. E. & M. J., vol. 37, p. 235. Table.

COST OF EXTRACTION OF SULPHUR. Min. & Sci. Press, vol. 48, p. 350. Table.

COST OF SMELTING SILICIOUS ORES, MEXICO. Min. & Sci. Press, vol. 83, p. 5. Table.

PROFITS OF SMELTING IN UTAH. Min. & Sci. Press, vol. 35, p. 22. 1 column.

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COST OF SMELTING THE SILICIOUS ORES OF THE BLACK HILLS. E. & M. J., vol. 69, p. 228.

SMELTER CHARGES AT DENVER AND SALT LAKE CITY. M. & M., vol. 22, p. 204. Table.

COST OF SMELTING IN REVERBERATORY FURNACES. Min. & Sci. Press, vol. 89, p. 36.

COST OF DISPOSAL OF BULLION. Gold Min. & Mill., W. Aus., p. 466. 4 pages.

COST OF REFINING AND SHIPPING CRUDE BULLION. Min. & Sci. Press, vol. 36, p. 93. $\frac{1}{2}$ column.

See also REFINING GOLD AND SILVER, REFINING OF COPPER, and METALLURGY OF LEAD.

COST OF CALCINING WITH THE MERTON FURNACE, AT KALGOORLIE. E. & M. J., vol. 76, p. 776.

THE COST OF ROASTING ORES. E. & M. J., vol. 56, p. 666. 2 columns.

COST OF ROASTING ORE. T. A. I. M. E., vol. 10, p. 34.

COST OF ROASTING PER TON WITH THE BROWN ROASTER. E. & M. J., vol. 62, p. 9.

COST OF ROASTING AND HANDLING ORE. T. A. I. M. E., vol. 19, p. 294.

COST OF ROASTING CONCENTRATES. T. A. I. M. E., vol. 17, p. 318.

COST OF ROASTING ORE IN COLORADO.

E. & M. J., vol. 78, p. 669. Table.

See also ROASTING ORES, ETC.

Cost of Mine Examination

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- COST OF MINE WORK PER LINEAR FOOT, GRANITE MOUNTAIN MINING COMPANY. E. & M. J., vol. 44, p. 432. Table.
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- See also MISCELLANEOUS PRODUCTION.
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- THE GOWGANDA REGION IN ONTARIO. E. & M. J., vol. 88, p. 60. 5 columns.
- IMPRESSIONS OF A NEW CAMP: Gowganda. By H. E. West. E. & M. J., vol. 87, p. 900. 7 columns.
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- THE IRON ORES OF ONTARIO. By A. B. Willmott. J. C. M. I., vol. 11, p. 106. 18 pages.
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- OCCURRENCES OF IRON ORES AT BRUCE MINES, ONTARIO. J. C. M. I., vol. 10, p. 158. 2 pages. D.
- IRON MINING POSSIBILITIES IN THE PROVINCE OF QUEBEC. By F. Cirkel. J. C. M. I., vol. 10, p. 108. 10 pages. D.
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- THE MOOSE MOUNTAIN IRON RANGE, WITH SPECIAL REFERENCE TO THE PROPERTIES OF MOOSE MOUNTAIN LTD. By N. L. Leach. J. C. M. I., vol. 11, p. 147. 4 pages.
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- CHROME ORE IN CANADA. By P. Thompson. E. & M. J., vol. 88, p. 726. 2½ columns.
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- THE MICA INDUSTRY IN CANADA. By F. Cirkel. E. & M. J., vol. 85, p. 801. 3¼ columns. I.
- THE TILBURY AND ROMNEY OIL-FIELDS IN ONTARIO. E. & M. J., vol. 85, p. 363. 1 column.
- THE COMMERCIAL VALUE OF THE OIL-SHALES OF EASTERN CANADA, BASED ON THEIR CONTENTS BY ANALYSIS IN CRUDE OIL AND AMMONIUM SULPHATE. By R. W. Ells. J. M. Soc. N. S., vol. 15, p. 29. 28 pages.
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- THE SILVER VEINS OF THE MONTREAL RIVER DISTRICT, CANADA. By A. E. Barlow. Min. & Sci. Press, vol. 97, p. 462. 6½ columns.
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- THE COBALT MINING DISTRICT. By R. Bell. J. C. M. I., vol. 10, p. 62. 10 pages.
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Chile

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By S. H. Loram. Min. & Sci. Press,
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GEOLOGICAL AND MINING NOTES ON
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Colombia and The Guianas

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By F. L. Garrison. Min. & Sci.
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Map.

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- COAL AND IRON EXPLORATIONS IN OAXACA, MEXICO. By J. L. W. Birkinbine. E. & M. J., vol. 90, p. 668. $10\frac{1}{4}$ columns. I.
- GEOLOGY OF THE OAXACA COAL AND IRON DEPOSITS. E. & M. J., vol. 90, p. 668. 10 columns. I.
- THE CANANEA CONSOLIDATED COPPER COMPANY IN 1908. By L. D. Ricketts. E. & M. J., vol. 87, p. 701. 13 columns.
- REVIVAL IN URES, HERMOSILLO AND SAHUARIPA DISTRICTS, SONORA. By W. L. Wilson. E. & M. J., vol. 90, p. 661. 3 columns.
- SAN ANTONIO COPPER DISTRICT, SONORA, MEXICO. E. & M. J., vol. 90, p. 1301. $3\frac{1}{4}$ columns. D.
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- LAS PILARES MINE, NACAZARI, MEXICO. By C. De Kalb. Min. & Sci. Press, vol. 100, p. 887. $6\frac{1}{2}$ columns. I.
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- NACAZARI MINING DISTRICT, SONORA, MEXICO. By B. E. Russell. E. & M. J., vol. 86, p. 657. 16 columns. I.
- THE MAGISTRAL COPPER DISTRICT, MEXICO. By P. A. Babb. E. & M. J., vol. 88, p. 1215. $4\frac{1}{4}$ columns. I.
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- SANTA GERTRUDE'S AND LA BLANCA MINES, PACHUCA, MEXICO. E. & M. J., vol. 88, p. 670. 1 column. I.
- THE SANTA GERTRUDE'S MINE, PACHUCA, MEXICO. E. & M. J., vol. 89, p. 214. 9 columns. I.
- SOME FEATURES OF MINING AT PACHUCA, MEXICO. E. & M. J., vol. 86, p. 1051. 4½ columns.
- SAN RAFAEL Y ANEXAS MINING COMPANY, PACHUCA, MEXICO. By E. Girault. E. & M. J., vol. 90, p. 643. 9 columns. I.
- LAS PILARES MINE, SONORA, MEXICO. By E. M. Robb. M. & M., vol. 31, p. 106. 11½ columns. I.
- OCCURRENCE OF GOLD AND SILVER ORES AT THE LAS PILARES MINE. M. & M., vol. 106. 2¼ columns. I.
- MINAS PEDRAZZINI OPERATIONS NEAR ARIZPE, SONORA, MEXICO. By E. L. Dufourcq. E. & M. J., vol. 90, p. 1105. 5½ columns.
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- EL RAYO GOLD MINE, NEAR SANTA BARBARA, MEXICO. By C. T. Rice. E. & M. J., vol. 86, p. 78. 7 columns. I.
- SAN JOSÉ DE GRACIA, A GREAT MEXICAN GOLD CAMP. By E. A. H. Tays. E. & M. J., vol. 88, p. 640. 16 columns. I.
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- DRY PLACERS IN NORTHERN SONORA, MEXICO. By F. J. H. Merrill. Min. & Sci. Press, vol. 97, p. 360. 2¾ columns. I.

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- THE CABRILLAS LEAD MINES OF COAHUILA, MEXICO. By S. J. Lewis. E. & M. J., vol. 89, p. 1071. 8 columns. I.
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- EL TIGRE MINE, MONTEZUMA DISTRICT, SONORA, MEXICO. By R. L. Herrick. M. & M., vol. 29, p. 483. 10 columns. I.
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- THE PROMONTORIO SILVER-MINE, DURANGO, MEXICO. By F. C. Lincoln. T. A. I. M. E., vol. 38, p. 734. 16 pages. I.
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- THE WORKING MINES OF GUANAJUATO. By C. T. Rice. E. & M. J., vol. 86, p. 806. 8 columns. I.
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- LOS LAMENTOS MINE, CHIHUAHUA. E. & M. J., vol. 87, p. 489. 1 column.
- RECENT MINING DEVELOPMENTS IN CHIHUAHUA. By A. P. Rogers. E. & M. J., vol. 88, p. 681. $6\frac{1}{2}$ columns. I.
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OPERATIONS OF THE DOC RUN LEAD COMPANY. By A. H. Fay. E. & M. J., vol. 89, p. 610. 9 columns. I.

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- See also MISCELLANEOUS PRODUCTION.
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Nevada

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- New York**
- AN ARSENIC MINE IN PUTNAM COUNTY NEW YORK. By E. K. Judd. E. & M. J., vol. 85, p. 306. 1 column.
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- THE FOREST OF DEAN IRON MINE, NEW YORK. By G. C. Stoltz. E. & M. J., vol. 85, p. 1091. 5½ columns. I.
- THE CLINTON IRON-ORE DEPOSITS IN NEW YORK STATE. By D. H. Newland. T. A. I. M. E., vol. 40, p. 165. 19½ pages. I.
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- MINING IN NEW ZEALAND. Min. & Sci. Press, vol. 96, p. 233. 2 columns. I.
- THE BLACKWATER MINES AT WAINTA, NEW ZEALAND. By S. Fry. E. & M. J., vol. 89, p. 726. 4 columns. I.
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- THE MINING INDUSTRY OF NICARAGUA. By T. L. Carter. M. & M., vol. 31, p. 566. 4½ columns. I.
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- GOLD IN EASTERN NICARAGUA. By C. C. Semple. Min. & Sci. Press, vol. 99, p. 221. 6½ columns. I.
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- Nova Scotia**
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- THE CARBONACEOUS AND BITUMINOUS MINERALS OF NEW BRUNSWICK. By R. W. Ells. J. C. M. I., vol. 11, p. 204. 15 pages.
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- THE CLAY AND SHALE DEPOSITS OF NOVA SCOTIA. By H. Ries. J. M. Soc. N. S., vol. 15, p. 9. 18½ pages.
- COAL MINING IN PICTOU COUNTY, NOVA SCOTIA. By H. E. Coll. E. & M. J., vol. 85, p. 1101. 7 columns. I.
- DOMINION No. 2 COLLIERY OF THE DOMINION COAL COMPANY. By A. G. Haultain. J. C. M. I., vol. 13, p. 641. 14 pages. I.
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MINE DRAINAGE

Drainage in General

- CURRENT PUMPS FOR MINING.** By F. Reed. M. & M., vol. 30, p. 653. 3½ columns. I.
- DIVERTING WATER IN A WET SHAFT.** By A. D. Cox. M. & M., vol. 30, p. 415. ¾ column. I.
- PUMPING DURING SHAFT SINKING.** M. & M., vol. 30, p. 404. 5 columns. I.
- See also **SHAFT SINKING.**
- THE DRAINAGE OF THE NEW CHUM LINE OF REEF.** By F. G. Buckell. T. Au. I. M. E., vol. 8, pt. 2, p. 250. 4 pages. Map. D.
- DRAINAGE IN THE JOPLIN REGION, MISSOURI:** Shadow streams, etc. T. A. I. M. E., vol. 38, p. 327. 2 pages.
- PUMPING PROBLEMS OF THE JOPLIN DISTRICT.** By D. Brittain. E. & M. J., vol. 86, p. 214. 10½ columns. I.
- MINE DRAINAGE IN JOPLIN DISTRICT.** By L. L. Wittich. M. & M., vol. 30, p. 535. 5¼ columns. I.
- STORM WATER DRAINS AND DATA.** By J. B. Balcomb. J. W. Soc. E., vol. 15, p. 699. 40 pages. I.
- TAPPING MINE WATER UNDER PRESSURE.** E. & M. J., vol. 86, p. 230. 1 column.
- See also **USE OF BORE HOLES.**
- NEW METHOD OF EXTRACTING OIL FROM BOREHOLES.** By F. A. Talbot. E. & M. J., vol. 87, p. 1001. 6 columns. I.
- LEINWEBER METHOD OF EXTRACTING OIL FROM WELLS.** By F. A. Talbot. E. & M. J., vol. 89, p. 1270. 4 columns. I.
- DETERMINING HEIGHT OF WATER IN INACCESSIBLE OPEN PIT.** By B. H. Case. E. & M. J., vol. 85, p. 301. 1½ columns. I.

THE DISCHARGE OF SEWAGE INTO TIDAL WATERS. By G. A. Soper. Sch. Mines Quart., vol. 30, p. 239. 12½ pages.

Theory of Pumping

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Pump Tests, Efficiency, etc.

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Pumps for Mine Use

REVIEW OF PAST AND PRESENT STEAM PUMPING AT MINES. By J. Tipping. T. Au. I. M. E., vol. 2, p. 31. 19½ pages.

METHODS OF PUMPING DEEP GROUND WATERS. By C. B. Burdick. J. W. Soc. E., vol. 12, p. 719. 37 pages. I.

THE PUMPING PROBLEMS AT THE TOMBSTONE MINE. By W. F. Staunton. E. & M. J., vol. 89, p. 174. 3½ columns.

PUMPING AT BISBEE, ARIZONA. By C. C. Austin. M. & M., vol. 31, p. 132. 4 columns. I.

PUMP STATION AT LEONARD MINE, BUTTE. E. & M. J., vol. 90, p. 400. 2½ columns. I.

THE OLD DOMINION PUMPING SYSTEM. By R. L. Herrick. M. & M., vol. 31, p. 324. 6 columns. I.

DEEP PUMPING ON THE COMSTOCK. M. & M., vol. 30, p. 761. 5½ columns. I.

PUMPING PLANT AT THE WARD SHAFT, VIRGINIA CITY, NEVADA. E. & M. J., vol. 89, p. 575. 1½ columns. I.

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AN URGENT PUMPING PROBLEM AND HOW IT WAS SOLVED. By J. A. Seager. E. & M. J., vol. 88, p. 509. 2½ columns. I.

THE EMERSON STEAM PUMP. E. & M. J., vol. 85, p. 555. 1½ columns. I.

LOWERING A LARGE PUMP INTO A MINE. By G. J. Young. E. & M. J., vol. 87, p. 806. 2½ columns. I.

THE SINKING PUMP AND ITS TROUBLES. By M. T. Hoster. E. & M. J., vol. 89, p. 601. 2½ columns. I.

See also SHAFT SINKING.

See also COST OF PUMPING AND BAILING.

Water Rings for Mine Shafts

WATER RINGS IN THE FILBERT SHAFT, PENNSYLVANIA. M. & M., vol. 30, p. 560. ¾ column. I.

WATER-RINGS FOR CIRCULAR SHAFTS. T. I. M. E., vol. 38, p. 25. ½ page.

Rotary Pumps

CENTRIFUGAL PUMPS. By W. R. Wiley. J. W. Soc. E., vol. 15, p. 228. 36 pages. I.

KINEMATICS OF ONE FORM OF ROTARY PUMP OR BLOWER. By S. W. Balch. Sch. Mines Quart., vol. 30, p. 21. 6 pages. I.

THE DESIGN OF CENTRIFUGAL PUMPS. By J. A. Seager. E. & M. J., vol. 90, p. 1216. 6 columns. I.

CENTRIFUGAL PUMP EFFICIENCY. By V. V. Messer. Min. & Sci. Press, vol. 98, p. 696. 4½ columns. I.

EFFICIENCY OF CENTRIFUGAL PUMPS. By F. W. Kerns. Min. & Sci. Press, vol. 100, p. 862. 2½ columns.

MOTOR DRIVEN CENTRIFUGAL PUMP FOR MINE USE. By C. Robinson. E. & M. J., vol. 87, p. 404. 3½ columns. I.

MINE PUMPING WITH DIRECT CONNECTED ELECTRICALLY DRIVEN TURBINE PUMPS. By P. H. Moore. J. M. Soc. N. S., vol. 12, p. 1. 8½ pages.

See also ELECTRICITY IN THE MINE.

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INSTALLATION AND USE OF TURBINE PUMPS. By M. S. Hachita. Coal Mining Supplement, E. & M. J., vol. 88, p. 22. 8½ columns. I.

Cornish Pumps

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CORNISH PUMPS AND PUMPING ENGINES. By H. F. Collins. Min. & Sci. Press, vol. 98, p. 289, $3\frac{1}{2}$ columns; p. 317, $4\frac{1}{2}$ columns. D.

COMPOUND CORNISH PUMPING ENGINES. By W. P. Gauvain. Min. & Sci. Press, vol. 99, p. 62. $5\frac{3}{4}$ columns. Diagrams.

See also COST OF PUMPING AND BAILING.

Hand Pumps and Water Portage

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Hydraulic Pumps

THE KOERTING WATER-JET EDUCTOR. E. & M. J., vol. 85, p. 1251. $\frac{1}{2}$ column. I.

INJECTOR OF HYDRAULIC SYSTEM USED IN THE C. AND C. SHAFT, COMSTOCK LODGE. M. & M., vol. 29, p. 154. I.

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Siphons in Mines

THE SIPHON IN MINING. By J. T. Beard. M. & M., vol. 31, p. 427. $4\frac{1}{2}$ columns. I.

PUMPING AND SIPHONING HOT WATER. By J. T. Beard. M. & M., vol. 31, p. 663. 3 columns. I.

Compressed Air Pumping

THE AIR-LIFT PUMP. J. W. Soc. E., vol. 12, p. 751. 2 pages. I.

AIR-LIFT PUMP EMPLOYED IN UNWATERING MINE AFTER MINE FIRE. E. & M. J., vol. 85, p. 640. 4 columns. I.

DIRECT AIR-PRESSURE PUMPING. Min. & Sci. Press, vol. 96, p. 819. $2\frac{1}{2}$ columns. I.

AIR LIFT PUMPING. By E. A. Rix. Min. & Sci. Press, vol. 101, p. 505. 4 columns. Tables.

EFFICIENCY OF THE AIR LIFT AS A SOLUTION PUMP. By L. M. Green. E. & M. J., vol. 88, p. 251. $13\frac{3}{4}$ columns. I.

NOTES ON THE POHLE AIR LIFT. By W. S. Anderson. E. & M. J., vol. 89, p. 256. $2\frac{1}{2}$ columns.

RAISING LIQUIDS BY COMPRESSED AIR. E. & M. J., vol. 87, p. 646. $\frac{2}{3}$ column. I.

THE ECONOMIC USE OF COMPRESSED AIR IN THE ELEVATION OF TAILINGS. By J. W. Archibald. T. Au. I. M. E., vol. 8, pt. 1, p. 103. $4\frac{1}{2}$ pages.

UNWATERING SHAFT BY COMPRESSED AIR. By L. Boudoire. E. & M. J., vol. 90, p. 848. $1\frac{1}{2}$ columns. I.

See also SHAFT SINKING.

ELECTRIC REHEATER FOR AIR-DRIVEN PUMPS. E. & M. J., vol. 89, p. 1216. 1 column. I.

See also COMPRESSED AIR IN MINING.

Vacuum Pumps

THE VACUUM-PUMP IN THE CYANIDING OF SAND. By W. A. Caldecott. Min. & Sci. Press, vol. 98, p. 316. $1\frac{1}{2}$ columns.

THE USE OF THE VACUUM PUMP IN THE CYANIDING OF SAND. P. C. M. & M. Soc. S. A., vol. 9, p. 240. 2 columns.

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ELECTRICALLY DRIVEN MINE PUMPS. By S. F. Walker. E. & M. J., vol. 87, p. 422. 4 columns.

ELECTRICAL MINE-PUMPS IN EUROPE. By A. S. Atkinson. Min. & Sci. Press, vol. 99, p. 334. 4 columns.

EXPERIMENTS WITH TWO ELECTRICALLY-DRIVEN PUMPS. By T. L. Galloway. T. I. M. E., vol. 36, p. 82. 11 pages.

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Bailing Water

BAILING WATER AT COLEMAN SHAFT. By F. G. Brackett. M. & M., vol. 31, p. 631. 3 columns. I.

WATER TANK AND COUNTERWEIGHT USED AT THE ROOSEVELT TUNNEL. M. & M., vol. 29, p. 391. $\frac{3}{4}$ column. I.

HOISTING MINE WATER. E. & M. J., vol. 87, p. 1281. $3\frac{1}{2}$ columns.

See also HOISTING IN MINING.

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UNWATERING FLOODED MINES. By D. Lamont. E. & M. J., vol. 90, p. 639. 3 columns.

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Drainage Tunnels

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THE ROOSEVELT DEEP DRAINAGE TUNNEL, COLORADO. By R. M. Bagg. E. & M. J., vol. 88, p. 1061. 5 columns. I.

THE LOS ANGELES AQUEDUCT TUNNEL WORK. Min. & Sci. Press, vol. 100, p. 681. $3\frac{3}{4}$ columns. I.

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Pipes and Pipe Fitting

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TESTS OF CAST IRON REINFORCED CONCRETE CULVERT PIPE. By A. N. Talbot. J. W. Soc. E., vol. 13, p. 376. 58 pages. I.

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CONCRETE PIPE CULVERTS. By O. P. Chamberlain. J. W. Soc. E., vol. 12, p. 81. 19 pages. I.

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ZOLLNERS' PATENT WATER PIPE. By F. D. Power. T. Au. I. M. E., vol. 5, p. 131. 7 pages. Table.

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A CALIFORNIA PIPE LINE. E. & M. J., vol. 86, p. 707. 1 column.

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DITCHES: Method of Calculating Sections and Construction for Mining Work. By D. Waterman. Min. & Sci. Press, vol. 98, p. 352. 8 columns. I. Diagrams.

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HISTORY OF THE ROCK DRILL. By W. L. Saunders. Min. & Sci. Press, vol. 100, p. 735. 2 columns.

THE HISTORY OF THE ROCK DRILL. By W. L. Saunders. M. & M., vol. 31, p. 18. 1½ columns.

HISTORY OF THE WATER LEYNER DRILL. By C. A. Hirschberg. M. & M., vol. 31, p. 148. 2 columns.

EVOLUTION OF WELL-DRILLING MACHINERY. By J. L. Cowan. Min. & Sci. Press, vol. 100, p. 676. 3¾ columns.

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CONTRACT FOR DRILLING. Min. & Sci. Press, vol. 99, p. 615. ½ column.

Hand Drills

THE HAND DRILL IN PROSPECTING PLACER DEPOSITS. By J. P. Hutchins. E. & M. J., vol. 86, p. 1141. 13½ columns. I.

HAND BORING BY THE VICTORIAN MINES DEPARTMENT. T. Au. I. M. E., vol. 7, p. 49. 7 pages. I.

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NOTES ON HAMMER DRILL WORK AT THE GRANITE MINES, BRITISH COLUMBIA. By H. B. Williams. T. I. M. & M., vol. 19, p. 463. 5½ pages. I.

HAND DRILLING IN ALLUVIUM. By E. K. Hall. Min. & Sci. Press, vol. 101, p. 118. 2 columns.

HAND CHURN DRILLING. By O. H. Packer. Min. & Sci. Press, vol. 99, p. 296. 1¼ columns.

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NOTES ON THE CONSTRUCTION AND PRACTICAL OPERATION OF ROCK DRILLING MACHINES. By E. M. Weston. P. C. M. & M. Soc. S. A., vol. 6, p. 38, 20½ columns, I.; p. 118, 24½ columns, I.; p. 162, 11 columns; p. 193, 3 columns; p. 217, 11½ columns.

NOTES ON SMALL STOPE DRILLS. By E. M. Weston. P. C. M. & M. Soc. S. A., vol. 8, p. 109. 23 columns, I.; p. 151, 2¼ columns; p. 189, 1 column; p. 210, 20 columns; p. 270, 15 columns.

AIR-DRILLS AND THEIR EFFICIENCY. By S. K. Patterson. Min. & Sci. Press, vol. 97, p. 467. 2¾ columns.

EFFECT OF HIGH AND LOW AIR PRESSURE IN OPERATING DRILLS. P. C. M. & M. Soc. S. A., vol. 8, p. 216. 1 column.

THE SCIENCE OF ECONOMICALLY MINING HARD GROUND WITH PRECUSSIVE ROCK DRILLS AND COMPRESSED AIR. By W. A. T. Davies. T. Au. I. M. E., vol. 11, p. 151. 13 pages. I.

ROCK DRILLS AND AIR ECONOMY. E. & M. J., vol. 87, p. 895. 3 columns. I.

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DRILLING MACHINES. Min. & Sci. Press, vol. 20, p. 56. ¾ column.

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THE GORDON DRILL. E. & M. J., vol. 87, p. 468. ½ column. I.

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THE SCOTT GASOLINE ROCK DRILL. E. & M. J., vol. 86, p. 1008. $\frac{1}{2}$ column. I.

THE STEPHENS CLIMAX IMPERIAL HAMMER DRILL. By E. M. Weston. E. & M. J., vol. 87, p. 657. $3\frac{3}{4}$ columns. I.

MINE DRILLING IN THE HOG MOUNTAIN MINES, ALABAMA. T. A. I. M. E., vol. 39, p. 581. $\frac{3}{4}$ page.

MACHINE DRILLS FOR STOPING. By E. M. Weston. E. & M. J., vol. 85, p. 1002. $12\frac{3}{4}$ columns, I.; p. 1045, $8\frac{1}{2}$ columns, I.

DRIFTING WITH A STOPING DRILL. By H. E. Moon. M. & M., vol. 31, p. 697. $\frac{3}{4}$ column. I.

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DRILLS FOR STOPING. By A. Del Mar. Min. & Sci. Press, vol. 96, p. 169. 2 columns.

METHOD OF DRILLING AND ORDER OF BLASTING THE ROOSEVELT TUNNEL, COLORADO. E. & M. J., vol. 88, p. 1062. D.

FAILURE OF STOPE DRILLS ON THE RAND. E. & M. J., vol. 85, p. 110. $1\frac{1}{2}$ columns.

DUST COLLECTOR FOR ROCK DRILLS. E. & M. J., vol. 85, p. 957. $\frac{1}{2}$ column.

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Air-Hammer Drills

REQUISITES FOR AIR-HAMMER DRILL BITS. By G. E. Walcott. Min. & Sci. Press, vol. 101, p. 674. $1\frac{3}{4}$ columns. I.

THE MERITS AND DEMERITS OF AIR-HAMMER DRILLS. By G. E. Walcott. E. & M. J., vol. 85, p. 351. $8\frac{1}{2}$ columns. I.

THE DEVELOPMENT OF THE HAMMER DRILL. P. C. M. & M. Soc. S. A., vol. 8, p. 63. $2\frac{1}{2}$ columns.

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Forming and Tempering Drills

DRILL STEEL. P. C. M. & M. Soc. S. A., vol. 8, p. 262. 2 columns. I.

CRUCIFORM STEEL FOR MACHINE-DRILLS. By E. P. Kennedy. Min. & Sci. Press, vol. 97, p. 391. $1\frac{1}{2}$ columns.

STOPING-DRILL STEELS. M. & M., vol. 31, p. 717. 2 columns. I.

DRILL STEEL BITS AND DRILL STEEL. T. A. I. M. E., vol. 11, p. 156. 1 page.

ROCK DRILL BITS. By T. H. Proske. Min. & Sci. Press, vol. 100, p. 347. $5\frac{1}{2}$ columns. I.

SELECTION AND USE OF BITS FOR POWER DRILLS. By M. De Cennes. E. & M. J., vol. 87, p. 1183. $4\frac{3}{4}$ columns. I.

FORMS OF DRILL BITS. P. C. M. & M. Soc. S. A., vol. 8, p. 263, I.; p. 275. Note.

DESIGN OF BITS FOR POWER DRILLS. By E. K. Judd. E. & M. J., vol. 88, p. 1220. $3\frac{1}{2}$ columns. I.

THE DRESSING OF DRILL BITS. T. Au. I. M. E., vol. 11, p. 157. 1 page.

DUNSTON'S DRILL SHARPENER. E. & M. J., vol. 85, p. 1048. 2 columns. I.

SHARPENING DRILLS UNDERGROUND. E. & M. J., vol. 87, p. 767. $1\frac{1}{2}$ columns.

CALUMET AND HECLA DRILL-SHARPENING DEVICE. By C. L. C. Fitchtel. E. & M. J., vol. 87, p. 1073. 7 columns. I.

Use of Bore Holes

AN ARRANGEMENT FOR HOLING INTO OLD WORKINGS. E. & M. J., vol. 88, p. 213. 2 columns.

See also DRAINAGE IN GENERAL.

Prospect Drilling

PROSPECT DRILLING IN THE GLOBE-KELVIN DISTRICT, ARIZONA. E. & M. J., vol. 89, p. 872. 3 columns. I.

PROSPECT DRILLING AT RAY, NEVADA. M. & M., vol. 29, p. 545. 1 column.

DRILLING WITH AN AUGER BIT. E. & M. J., vol. 86, p. 1143. 1 column.

DRILL USED IN PROSPECTING FOR COAL. M. & M., vol. 30, p. 454. $\frac{1}{4}$ column. I.

PROSPECT DRILLING IN THE JOPLIN DISTRICT. By O. Ruhl. M. & M., vol. 29, p. 6. $3\frac{1}{2}$ columns. I.

PROSPECTING WITH THE DIAMOND DRILL. By B. Hunt. Min. & Sci. Press, vol. 96, p. 257. $2\frac{1}{2}$ columns.

See also DIAMOND AND ROTARY DRILLS, and CHURN DRILLS AND DRILLING.

THE DRILL AS A MEANS OF TESTING FOR GRAVEL. Min. & Sci. Press, vol. 98, p. 721. 7 columns. I.

See also VALUE OF MINES, ETC.

OIL-WELL DRILLING IN CALIFORNIA. By W. R. Jewell. Min. & Sci. Press, vol. 101, p. 775. $3\frac{3}{4}$ columns.

BRINGING IN A GUSHER. E. & M. J., vol. 90, p. 807. $1\frac{1}{2}$ columns. I.

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DRILLING FOR OIL IN EASTERN ILLINOIS. By R. S. Blatchley. Min. & Sci. Press, vol. 99, p. 613. $8\frac{1}{2}$ columns. I.

PROSPECTING FOR COAL: Boring. Min. Mag., vol. 7, p. 258, $7\frac{1}{2}$ pages; p. 463, $7\frac{1}{2}$ pages.

See also PETROLEUM, ETC.

SEARCHING FOR COAL: Prospect Drilling. Min. Mag., vol. 8, p. 322. 11 pages; vol. 7, p. 463. $7\frac{1}{2}$ pages.

UNDERGROUND BORING TO PROVE A LOWER COAL SEAM. E. & M. J., vol. 86, p. 581. $\frac{1}{2}$ column.

See also PROSPECTING, ETC.

DRILLING FOR PLACER EXAMINATION. M. & M., vol. 29, p. 540. 5 columns.

See also AURIFEROUS GRAVELS.

TESTING DREDGEABLE GRAVELS. By W. H. Radford. Min. & Sci. Press, vol. 98, p. 721. 7 columns. I.

DRILLING IN ALLUVIAL GROUND IN ALASKA. By T. A. Rickard. Min. & Sci. Press, vol. 99, p. 558. $3\frac{1}{4}$ columns. I.

See also VALUE OF MINES.

WELL DRILLING MACHINES FOR COPPER PROSPECTING. By W. G. Weber. Min. & Sci. Press, vol. 101, p. 14. $4\frac{3}{4}$ columns.

See also COST OF DRILLING AND BORING.

Drill Records and Reports

DIAMOND DRILL RECORDS AT MOUNT MORGAN. E. & M. J., vol. 89, p. 712. $\frac{3}{4}$ column.

NEED OF COMPLETE RECORD OF PROSPECT DRILL HOLES. By H. C. George. E. & M. J., vol. 89, p. 528. $1\frac{1}{2}$ columns.

A REMARKABLE DRILL CORE. M. & M., vol. 30, p. 727. 3 columns. I.

A CORE-DRILL HOLE OF UNUSUAL SIZE. E. & M. J., vol. 88, p. 1237. 1 column.

- DRILL CORE PROBLEMS. By A. C. Lane. M. & M., vol. 30, p. 670. 2½ columns. I.
- A DIAMOND DRILL CORE SECTION OF THE MESABI ROCKS. By N. H. Winchell. T. L. S. M. I., vol. 14, p. 156, 22 pages; vol. 15, p. 100, 42 pages, I.
- RECORD OF BOREHOLE No. 1 OF THE STANDARD COAL AND RAILWAY COMPANY, LIMITED, ABOUT ONE MILE NORTH OF HALFWAY RIVER LAKE, CUMBERLAND COUNTY, NOVA SCOTIA. By R. H. Brown. J. M. Soc. N. S., vol. 10, p. 162. 6 pages.
- SAMPLING SLUDGE OF CHURN DRILLS. E. & M. J., vol. 90, p. 851. 1 column.
- INACCURACIES OF CHURN DRILL SAMPLING. By H. A. Field. E. & M. J., vol. 89, p. 953. 1 column.
- See also METHODS OF SAMPLING, ETC.
- DIAMOND DRILL REPORTS. E. & M. J., vol. 90, p. 1147. ½ column. D.
- See also DIAMOND AND ROTARY DRILLS and CHURN DRILLS AND DRILLING.
- Churn Drills and Drilling**
- COMPLETE CHURN DRILL EQUIPMENT FOR PROSPECTING. E. & M. J., vol. 90, p. 998. ½ column. Table.
- DRILLING WITH BAMBOO RODS. By W. A. Moller. T. I. M. E., vol. 36, p. 437. 6 pages. I.
- STEAM CHURN DRILL IN HOT AND COLD CLIMATES. By J. P. Hutchins. E. & M. J., vol. 86, p. 218. 9 columns. I.
- ELECTRICALLY-DRIVEN WELL-DRILLER. By J. V. Downie. Min. & Sci. Press, vol. 99, p. 269. 2½ columns. I.
- NEW DEVELOPMENTS IN WELL BORING AND IRRIGATION IN EASTERN SOUTH DAKOTA. By N. H. Darton. U. S. G. S., 18th Ann. Rept., pt. 4, pp. 561-616, 1896-97. I.
- BORING: Prospect Work by Churn Drill. Min. Mag., vol. 10, p. 451. 4½ pages.
- CHURN DRILLING AT ELY, NEVADA. M. & M., vol. 29, p. 81. ½ column.
- CHURN DRILLING IN ELY DISTRICT. By J. L. Dobbins. M. & M., vol. 29, p. 526. 4 columns. I.
- DETAILS OF CHURN DRILL OPERATIONS AT SILVERBELL, ARIZONA. By M. B. Gentry. E. & M. J., vol. 90, p. 850. 4¾ columns. I.
- PROSPECTING WITH CHURN DRILLS AT MIAMI, ARIZONA. By H. A. Field. E. & M. J., vol. 90, p. 804. 5 columns. D.
- See also PROSPECT DRILLING.
- CHURN DRILLING IN THE JOPLIN DISTRICT. E. & M. J., vol. 89, p. 1150. 3 columns. I.
- UNDERGROUND PROSPECT DRILLING IN THE JOPLIN DISTRICT: Churn Drilling. By F. W. Sansom. E. & M. J., vol. 90, p. 157. ¾ column.
- SUCCESSFUL PROSPECTING WITH CHURN DRILL UNDER UNFAVORABLE CONDITIONS. E. & M. J., vol. 87, p. 420. 3 columns.
- CHURN DRILL PROSPECTING IN THE JOPLIN DISTRICT. By J. F. Haley. E. & M. J., vol. 89, p. 1150. 3 columns. I.
- THE CHURN-DRILL AS A MEANS FOR PROSPECTING. By E. E. Carter. Min. & Sci. Press, vol. 96, p. 572. 1½ columns.
- CHURN DRILLING FOR BLASTING. E. & M. J., vol. 88, p. 178. ¾ column.
- THE STEEL OIL DERRICK. By R. B. Woodworth. P. E. Soc. W. Pa., vol. 25, p. 245. 67½ pages. I.
- STEEL DERRICKS AND DRILLING MACHINES. Min. & Sci. Press, vol. 101, p. 259. 2 columns. I.
- DEVELOPMENT AND DESIGN OF THE STEEL OIL DERRICK. By R. B. Woodworth. E. & M. J., vol. 88, p. 304. 16½ columns. I.
- See also COST OF DRILLING AND BORING.

Diamond and Rotary Drills

- THE DIAMOND DRILL. Min. & Sci. Press, vol. 20, p. 17. $\frac{1}{2}$ column.
- THE DIAMOND POINTED DRILL. Min. & Sci. Press, vol. 20, p. 296, 3 columns, I.; p. 311, 2 columns, I.
- DIAMONDS FOR CUTTING AND DRILLING. Min. & Sci. Press, vol. 22, p. 246. $\frac{3}{4}$ column.
- WEAR OF DIAMONDS IN DRILLING VARIOUS ROCKS. E. & M. J., vol. 89, p. 1100. $1\frac{1}{2}$ columns.
- NOTE ON DIAMOND DRILLING. By C. M. Haight. Sch. Mines Quart., vol. 30, p. 98. $1\frac{1}{2}$ pages. I.
- DIAMOND DRILLING NOTES IN KEWEE-NAW POINT. M. & M., vol. 31, p. 295. 1 column.
- THE DIAMOND CORE-DRILL IN PROSPECTING. By L. T. Wright. Min. & Sci. Press, vol. 95, p. 461. $3\frac{1}{2}$ columns.
- THE DIAMOND DRILL AT THE SMARTSVILLE TUNNEL. Min. & Sci. Press, vol. 22, p. 344. $1\frac{1}{3}$ columns.
- DIAMOND DRILLING AT TONOPAH. By J. M. Fox. Min. & Sci. Press, vol. 99, p. 262. $5\frac{1}{4}$ columns. I.
- DIAMOND DRILLING AT THE GRANBY MINES. J. C. M. I., vol. 11, p. 401. $\frac{1}{2}$ page.
- THE DIAMOND DRILL IN THE ANTHRACITE FIELDS. By F. Lynde. E. & M. J., vol. 88, p. 258. 9 columns. I.
- PROSPECTING WITH DIAMOND DRILLS IN MEXICAN MINES. E. & M. J., vol. 86, p. 313. $1\frac{1}{4}$ columns.
- NOTES ON DIAMOND DRILLING AT THE MICHIGAN COPPER MINE, ROCKLAND, MICHIGAN. By C. M. Haight. Sch. Mines Quart., vol. 30, p. 302. 6 pages. I.
- DIAMOND DRILLING AT MAPINI. By J. F. Bennett. E. & M. J., vol. 85, p. 718. 3 columns. I.
- DEEP DIAMOND-BORING AT BALFOUR MAINS, FIFESHIRE, GREAT BRITAIN. By J. G. Thompson. T. I. M. E., vol. 36, p. 574. 6 pages. I.
- CALYX BORING BY THE VICTORIAN MINES DEPARTMENT. By S. Hunter. T. Au. I. M. E., vol. 7, p. 46. 3 pages. I.
- DIAMOND DRILL, CALYX AND HAND BORING BY THE VICTORIAN MINES DEPARTMENT. By S. Hunter. T. Au. I. M. E., vol. 7, p. 23. 40 pages. I.
- SOME NOTES ON "THE DAVIS CALYX DRILL." By Davis and Knapp. T. Au. I. M. E., vol. 3, p. 250. $5\frac{1}{2}$ pages. I.
- USE OF THE TERRY CORE DRILL IN MINE OPERATIONS. E. & M. J., vol. 89, p. 1156. 6 columns. I.
- DRILLING WITH ROTATED CASING. E. & M. J., vol. 86, p. 1142. $1\frac{1}{2}$ columns. I.
- See also COST OF DRILLING AND BORING.

Deep Drilling

- THE WORLD'S DEEPEST BORE-HOLE. P. C. M. & M. Soc. S. A., vol. 7, p. 307. Note.
- A DEEP DIAMOND DRILL HOLE. E. & M. J., vol. 87, p. 791. $1\frac{1}{2}$ columns.
- A DEEP BORING AT HESWELL, CHESHIRE, AND ITS BEARING UPON UNDERGROUND GEOLOGY OF THE LIVERPOOL-WIRRAL AREAS. By A. Wade. T. I. M. E., vol. 39, p. 163. $23\frac{1}{2}$ pages. I.
- RECORD OF DEEP-WELL DRILLING FOR 1904. By M. L. Fuller, E. F. Lines, and A. C. Veatch. U. S. G. S., Bull. 264, 106 pages, 1905; Bull. 298, 299 pages, 1906.
- DEEP DIAMOND-BORING AT BALFOUR MAINS, FIFESHIRE, GREAT BRITAIN. By J. G. Thompson. T. I. M. E., vol. 36, p. 574. 6 pages. I.

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- THE SOUTH AFRICAN STOPE-DRILL COMPETITION. By E. M. Weston. E. & M. J., vol. 85, p. 492. 10 columns. I.

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TRANSVAAL DRILL COMPETITION, 1909. M. & M., vol. 31, p. 459. $6\frac{1}{2}$ columns. I.

RATE OF DRILLING AT GOLDFIELD, NEVADA. E. & M. J., vol. 90, p. 1246. $\frac{2}{3}$ column.

RATE OF DRILLING WITH MACHINE DRILL. P. C. M. & M. Soc. S. A., vol. 8, p. 272. 6 columns.

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SURFACE TRIALS IN RAND STOPE DRILL COMPETITION. By E. M. Weston. E. & M. J., vol. 87, p. 998. $6\frac{1}{2}$ columns.

RATE OF DRILLING WITH WELL DRILLING OUTFIT FOR COPPER PROSPECTING. Min. & Sci. Press, vol. 101, p. 14. Table.

RATE OF DRILLING WITH DIAMOND DRILL IN VARIOUS FORMATIONS. Min. & Sci. Press, vol. 95, p. 461. Table.

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RECENT IMPROVEMENTS IN SUBMARINE DRILLING. E. & M. J., vol. 35, p. 31. 1 column.

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DEFLECTION OF BOREHOLES IN DIAMOND DRILLING. P. C. M. & M. Soc. S. A., vol. 7, p. 380. $\frac{1}{2}$ column.

DEVIATION OF BORE-HOLES. By J. Kitchin. Min. & Sci. Press, vol. 96, p. 462. 6 columns. I.

THE DEVIATION OF RAND BORE-HOLES FROM THE VERTICAL. By Joseph Kitchin. T. I. M. & M., vol. 17, p. 87. 50 pages. I.

CROOKED HOLES WITH CHURN DRILLS. E. & M. J., vol. 90, p. 851. $\frac{1}{2}$ column.

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APPARATUS FOR SURVEYING A BORE-HOLE. E. & M. J., vol. 87, p. 854. 2 columns. I.

SURVEYING DIAMOND DRILL HOLES. Sch. Mines Quart., vol. 30, p. 305. 3 pages. I.

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DIAMOND-DRILL TEST TUBES. By J. E. Jopling. M. & M., vol. 30, p. 635. 3 columns. I.

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ON THE ECONOMICS OF MINING. By J. R. Godfrey. T. Au. I. M. E., vol. 5, p. 143. 14 pages.

MEXICAN NOTES: Economic Advancement. By M. R. Lamb. Min. & Sci. Press, vol. 96, p. 702, 5 columns, I.; p. 736, 4 columns, I.

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STATUS OF MINING AND SMELTING IN COLORADO. By F. Guiterman. E. & M. J., vol. 90, p. 1009. 6 columns.

PRESENT MINING CONDITIONS ON THE RAND. By T. H. Leggett. T. A. I. M. E., vol. 39, p. 211. 12½ pages.

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ARE WE PROGRESSING? By S. A. Worcester. Min. & Sci. Press, vol. 99, p. 856. 2½ columns.

LAKE SUPERIOR IRON MINES IN 1907. By D. E. Woodbridge. E. & M. J., vol. 85, p. 113. 9 columns.

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THE EXPLORATION OF OUR MINERAL RESOURCES. By R. W. Brock. J. M. Soc. N. S., vol. 13, p. 125. 12 pages.

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THE INFLUENCE OF THE RAILROADS OF THE UNITED STATES AND CANADA ON THE MINERAL INDUSTRY. By J. Douglas. T. I. M. & M., vol. 19, p. 2. 55 pages.

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100, p. 424, 8½ columns; p. 450, 5½ columns.

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EMPIRE BUILDING IN WESTERN MEXICO. By P. E. Barbour. E. & M. J., vol. 85, p. 694. 10½ columns. I.

THE PRICE AT WHICH PROFITS VANISH. By J. R. Finlay. E. & M. J., vol. 85, p. 165. 2½ columns.

PROFIT PER ACRE. E. & M. J., vol. 89, p. 13. 2 columns.

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THE MINE AND THE FARM. By R. Drummond. J. M. Soc. N. S., vol. 14, p. 15. 14 pages.

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THE HISTORY OF GOLD AND SILVER. By J. W. Malcolmson. Min. & Sci. Press, vol. 95, p. 784. 5½ columns.

PRESENT STATUS OF THE GOLD MINING INDUSTRY. By J. H. Curle. Min. & Sci. Press, vol. 95, p. 147. 6½ columns. I.

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A CONTRIBUTION TO THE QUESTION OF PRICES. By W. R. Ingalls. E. & M. J., vol. 89, p. 1011. 15 columns.

DISPOSAL OF GOLD FROM THE RAND. By T. K. Rose. Min. & Sci. Press, vol. 98, p. 560. $4\frac{1}{2}$ columns.

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See also **COST OF PRODUCTION OF VARIOUS MATERIALS.**

The Function of Gold and Silver

ON THE DECLINE IN THE VALUE OF THE PRECIOUS METALS. Min. Mag., vol. 9, p. 525. $3\frac{1}{2}$ pages.

"DEPRECIATION OF GOLD." By J. P. Norton. E. & M. J., vol. 84, p. 446. $3\frac{3}{4}$ columns.

HAS THE VALUE OF GOLD DEPRECIATED? By W. R. Ingalls. E. & M. J., vol. 86, p. 1037. 18 columns. D.

THE DISTRIBUTION OF THE GOLD PRODUCED ON THE RAND. By T. K. Rose. P. C. M. & M. Soc. S. A., vol. 9, p. 265. 8 columns.

THE GOLD AND SILVER QUESTION. By T. Cornish. T. Au. I. M. E., vol. 2, p. 51. 6 pages.

THE MARKET PRICE AND GOLD PRODUCTION. E. & M. J., vol. 85, p. 1303. 3 columns. D.

THE SILVER MOVEMENT IN 1907. E. & M. J., vol. 85, p. 302. 2 columns.

A RUSSIAN MONEY TRUST. By G. E. Walsh. Min. & Sci. Press, vol. 99, p. 195. $2\frac{1}{2}$ columns.

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Conservation

CONSERVATION OF NATURAL RESOURCES. By J. Douglas. E. & M. J., vol. 87, p. 1202. 11 columns.

THE CONSERVATION MOVEMENT. By C. W. Hayes. Min. & Sci. Press, vol. 101, p. 664. $9\frac{1}{2}$ columns.

CONSERVATION AND SOME DIFFICULTIES. By H. V. Winchell. Min. & Sci. Press, vol. 99, p. 819. $2\frac{1}{2}$ columns.

CHEMISTRY AND THE CONSERVATION OF OUR FORESTS AND MINERALS. By M. T. Bogert. Sch. Mines Quart., vol. 30, p. 217. $21\frac{1}{2}$ pages.

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CONSERVATION OF IRON ORE AND COAL RESOURCES. P. C. M. & M. Soc. S. A., vol. 9, p. 248. 2 columns.

WASTE OF OUR FUEL RESOURCES. By I. C. White. M. & M., vol. 29, p. 41. $6\frac{1}{2}$ columns. I.

CONSERVATION AND ALASKAN COAL. By H. F. Bain. Min. & Sci. Press, vol. 100, p. 185. $7\frac{1}{4}$ columns. Map.

- CONSERVATION AS IT AFFECTS COAL LANDS. By E. W. Parker. Min. & Sci. Press, vol. 101, p. 469. 3½ columns.
- THE WASTE OF MINERAL FUEL RESOURCES. By I. C. White. E. & M. J., vol. 85, p. 1139. 7 columns.
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- CONSERVATION OF ORES AND MINERALS. By Andrew Carnegie. E. & M. J., vol. 85, p. 1051. 7 columns.
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- CONSERVATION AND INLAND WATERWAYS. By E. P. North. Min. & Sci. Press, vol. 100, p. 225. 4 columns.
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See also METALLURGY OF COPPER.

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JEFFREY-GRIFFITH CROSS-OVER DUMP. M. & M., vol. 31, p. 622. 1½ columns. I.

CRADLE FOR DUMPING MINE-CARS. By S. S. Clarke. Min. & Sci. Press, vol. 101, p. 803. 1 column. I.

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Rotary Dumps

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Self-Dumping Cages

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SAFETY-FUSES IN FRANCE. T. I. M. E., vol. 37, p. 689. 2 pages.

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Use of Explosives in Mining

A PRIMER ON EXPLOSIVES FOR COAL MINERS. By C. E. Munroe and C. Hall. U. S. G. S., Bull. 423, 61 pages. 1909.

USE OF EXPLOSIVES IN BRITISH COAL MINES. E. & M. J., vol. 90, p. 613. 3½ columns.

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SHOOTING OFF THE SOLID. E. & M. J., vol. 86, p. 6. $1\frac{1}{2}$ columns.

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ACTION OF SULPHUR IN A GAS COAL. E. & M. J., vol. 87, p. 897. $\frac{3}{4}$ column.

WHY SULPHUR ABOUNDS LOCALLY IN CERTAIN COAL SEAMS. By J. R. Heckman. E. & M. J., vol. 86, p. 14. $1\frac{1}{2}$ columns.

CHARACTERISTICS OF STEAM COAL. P. C. M. & M. Soc. S. A., vol. 7, p. 353. 2 columns.

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WHAT IS COAL: A Commercial Definition. Min. & Sci. Press, vol. 101, p. 663. $1\frac{1}{2}$ columns.

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FUEL AND ITS APPLICATION. Min. Mag., vol. 5, p. 499. 10 pages.

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PURE COAL AS A BASIS FOR THE COMPARISON OF BITUMINOUS COALS: Discussion of the paper of W. F. Wheeler, Trans., vol. 38, p. 621. T. A. I. M. E., vol. 39, p. 800. $5\frac{1}{2}$ pages.

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WEATHERING OF COAL IN THE ARID REGION OF THE GREEN RIVER BASIN, SWEETWATER COUNTY, WYOMING. By A. B. Schultz. U. S. G. S., Bull. 381, p. 282. 15 pages. 1908.

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WASTE OF COAL: Deterioration. T. A. I. M. E., vol. 38, p. 630. 3 pages.

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THE OXIDATION OF COAL. By O. Boudourd. E. & M. J., vol. 87, p. 995. $2\frac{1}{2}$ columns.

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Power Generation by Oil

BURNING LIQUID FUEL WITHOUT STEAM OR COMPRESSED AIR. By R. Schorr. Min. & Sci. Press, vol. 96, p. 851. 2½ columns.

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RESULTS OF PURCHASING COAL UNDER GOVERNMENT SPECIFICATIONS. By J. S. Burrows. U. S. G. S., Bull. 378, 44 pages, 1909; Bull. 428, 80 pages, 1910.

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THE PURCHASE OF COAL UNDER GOVERNMENT AND COMMERCIAL SPECIFICATIONS, ON THE BASIS OF ITS HEATING VALUE, WITH ANALYSES OF COAL DELIVERED UNDER GOVERNMENT CONTRACTS. By D. T. Randall. U. S. G. S., Bull. 339, 27 pages. I. 1908.

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- THE VERESPATAK-ABRUBANYA (GOLD) DISTRICT, HUNGARY. By G. Slujka. E. & M. J., vol. 85, p. 154. 1½ columns.
- GOLD DEPOSITS IN BOLIVIA. M. & M., vol. 30, p. 379. 1 column. Map.
- THROUGH THE BOLIVIAN HIGHLANDS. By E. P. Mathewson. Min. & Sci. Press, vol. 97, p. 227, 4 columns; p. 263, 8½ columns, I.
- SUCHEZ DE BOLIVIA HYDRAULIC MINE. By W. E. G. Firebrace. Min. & Sci. Press, vol. 98, p. 287. 3 columns. I.
- AURIFEROUS ALLUVIALS OF THE UPPER AMAZON VALLEY. By Sir W. M. Conway. E. & M. J., vol. 87, p. 496. 2 columns.
- THE CENTRE STAR GROUP OF MINES, ROSSLAND, BRITISH COLUMBIA. By R. H. Allen. E. & M. J., vol. 89, p. 17. 8½ columns. I.
- LE ROI MINE AT ROSSLAND, BRITISH COLUMBIA. By R. H. Allen. E. & M. J., vol. 89, p. 220. 4 columns. I.
- BEAR RIVER DISTRICT, BRITISH COLUMBIA. By W. W. Rush. Min. & Sci. Press, vol. 99, p. 152. 2 columns. Map.
- THE PORTLAND CANAL MINING DISTRICT, BRITISH COLUMBIA. E. & M. J., vol. 90, p. 451. 3 columns. I.
- CALIFORNIA GOLD MINING. Min. & Sci. Press, vol. 100, p. 17. 3 columns. I.
- MINERAL PROSPECTS AROUND DEATH VALLEY. By R. E. Rinehart. Min. & Sci. Press, vol. 97, p. 297. 4½ columns. I.
- MINERAL DISTRICT OF CENTRAL CALIFORNIA. By J. B. Trask. Min. Mag., vol. 3, p. 121, 15 pages; p. 239, 12 pages.
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- QUARTZ MINING OPERATIONS IN CALIFORNIA. Min. Mag., vol. 1, p. 144. 5½ pages.

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- THE NEW GOLD FIELD IN SAN DIEGO COUNTY, CALIFORNIA. *Min. & Sci. Press*, vol. 20, p. 200. 1 column.
- MINING ON THE MOTHER LODE IN AMADOR COUNTY, CALIFORNIA. By W. H. Storms. *Min. & Sci. Press*, vol. 100, p. 897. 6 columns.
- THE EXPOSED TREASURE LODE, MOJAVE, CALIFORNIA. By C. De Kalb. *T. A. I. M. E.*, vol. 38, p. 310. 10 pages. I.
- THE STANDARD MINE, BODIE, CALIFORNIA. By R. G. Brown. *T. A. I. M. E.*, vol. 38, p. 343. 15 pages. I.
- OBSERVATIONS ON THE EXTENT OF THE GOLD REGION OF CALIFORNIA AND OREGON. By W. P. Blake. *Min. Mag.*, vol. 5, p. 32. 14 pages.
- HART: A New California Gold Camp. E. & M. J., vol. 85, p. 308. ½ column.
- GOLD PARK DISTRICT, CALIFORNIA. E. & M. J., vol. 90, p. 600. 2 columns. I.
- BLACK DIAMOND, CALIFORNIA. By O. H. Hershey. *Min. & Sci. Press*, vol. 98, p. 147. 1½ columns.
- GOLD MINING IN RANDSBURG QUADRANGLE, CALIFORNIA. By F. L. Hess. *Min. & Sci. Press*, vol. 101, p. 508. 4 columns; p. 533, 8 columns, I.
- GOLD MINING IN THE RANDSBURG QUADRANGLE, CALIFORNIA. By F. L. Hess. *U. S. G. S., Bull.* 430, p. 23. 24 pages. 1909.
- HOAG DISTRICT, CALIFORNIA. By N. C. Stines. *Min. & Sci. Press*, vol. 100, p. 384. 5½ columns. I.
- KEYSTONE CONSOLIDATED MINE AND ITS EARLY HISTORY. By W. H. Storms. *Min. & Sci. Press*, vol. 100, p. 755. 4 columns. I.
- MINING AT GRASS VALLEY AND NEVADA CITY. By G. E. Walcott. *E. & M. J.*, vol. 87, p. 396. 6½ columns. I.
- MINING AT ALLEGHANY, CALIFORNIA. By F. L. Lowell. *Min. & Sci. Press*, vol. 100, p. 132. 3 columns. I.
- SOME ORE DEPOSITS IN THE INYO RANGE, CALIFORNIA. By J. A. Reid. *Min. & Sci. Press*, vol. 95, p. 80. 4½ columns. I.
- GOLD MINES NEAR THE CALAVERAS BIG TREES. *Min. & Sci. Press*, vol. 22, p. 361. 1 column.
- THE WEAVERVILLE-TRINITY CENTER GOLD GRAVELS, TRINITY COUNTY, CALIFORNIA. By D. F. MacDonald. *U. S. G. S., Bull.* 430, p. 48. 11 pages. I. 1909.
- SANTA CLARA RIVER PLACERS. By C. E. Jamison. *Min. & Sci. Press*, vol. 100, p. 360. 2½ columns.
- LA GRANGE HYDRAULIC MINE, CALIFORNIA. By D. F. Campbell. *Min. & Sci. Press*, vol. 97, p. 491. 6 columns. I.
- GOLD AREAS IN THE CANADIAN NORTHWEST. E. & M. J., vol. 90, p. 548. 4 columns.
- GOLD IN THE EASTERN TOWNSHIPS OF THE PROVINCE OF QUEBEC. By J. Obalski. *J. C. M. I.*, vol. 11, p. 251. 6 pages. I. Map.
- THE LARDER LAKE DISTRICT, ONTARIO. E. & M. J., vol. 85, p. 258. 2 columns.
- THE NICKEL PLATE MINE AND MILL. *Min. & Sci. Press*, vol. 101, p. 271. 4 columns. I.
- RECENT MINING DEVELOPMENTS ON THE SKEENA RIVER, CANADA. By W. W. Leach. *J. C. M. I.*, vol. 13, p. 357. 6 pages.
- THE OPASATIKA LAKE DISTRICT, PROVINCE OF QUEBEC. By F. Cirkel. *E. & M. J.*, vol. 87, p. 455. 3 columns. I.
- THE NEW GOLDFIELDS OF PORCUPINE, ONTARIO. By R. E. Hore. *E. & M. J.*, vol. 90, p. 1296. 3½ columns. I.

- THE PORCUPINE DISTRICT, ONTARIO. By R. W. Brock. E. & M. J., vol. 90, p. 221. 3 columns.
- THE PORCUPINE GOLDFIELD. By A. L. SIMON. Min. Mag., London, vol. 3, p. 348. 6 columns. I.
- PORCUPINE, THE NEW GOLD REGION OF THE FAR NORTH. Min. & Sci. Press, vol. 101, p. 705. 3½ columns.
- PORCUPINE DISTRICT OF ONTARIO. By W. G. Miller. Min. & Sci. Press, vol. 101, p. 232. 2 columns. Map.
- PORCUPINE LAKE REGION, ONTARIO. E. & M. J., vol. 89, p. 209. 3½ columns. Map.
- THE PORCUPINE GOLDFIELD. By W. J. Loring. Min. Mag., vol. 4, p. 284. 8 columns. I.
- THE PORCUPINE GOLD FIELD. By R. A. Meyer. M. & M., vol. 31, p. 701. 4½ columns. Map.
- A BRIEF DESCRIPTION OF THE GOWGANDA SILVER DISTRICT IN ONTARIO, CANADA. By P. R. Ireman. Sch. Mines Quart., vol. 31, p. 172. 4½ pages. I.
- FIRST YEAR OF THE GOWGANDA DISTRICT, ONTARIO. By G. M. Colvocoresses. E. & M. J., vol. 89, p. 1218. 9½ columns. I.
- THE GOWGANDA REGION IN ONTARIO. E. & M. J., vol. 88, p. 60. 5 columns.
- IMPRESSIONS OF A NEW CAMP: GOWGANDA. By H. E. West. E. & M. J., vol. 87, p. 900. 7 columns.
- NOTES ON THE RAINY RIVER DISTRICT, ONTARIO. By W. L. Fleming. E. & M. J., vol. 88, p. 1064. 6½ columns. I.
- THE EASTERN CANADIAN MINERAL BELT. By T. F. Van Wagenen. Min. & Sci. Press, vol. 101, p. 372. 5½ columns. Map.
- MONTREAL RIVER DISTRICT, CANADA. By W. H. Collins. Min. & Sci. Press, vol. 98, p. 895. 2 columns.
- THE PROGRESS OF GOLD MINING IN NORTH CAROLINA. By E. W. Lyon. E. & M. J., vol. 87, p. 293. 13½ columns. I.
- ORE DEPOSITS OF THE EASTERN GOLDBELT OF NORTH CAROLINA. By W. O. Crosby. T. A. I. M. E., vol. 38, p. 849. 9 pages.
- NOTES ON THE GOLD REGIONS OF NORTH AND SOUTH CAROLINA. By S. P. Leeds. Min. Mag., vol. 2, p. 27, 6 pages; p. 357, 12 pages, I.
- MINES AND MILL OF MONTEZUMA MINES, COSTA RICA. By S. F. Shaw. E. & M. J., vol. 90, p. 715. 6 columns. I.
- GOLD REGION OF THE STRAIT OF MAGELLAN. By R. A. T. Penrose. Min. & Sci. Press, vol. 98, p. 153. 3½ columns.
- THE GOLD DEPOSITS OF FRENCH GUIANA. E. & M. J., vol. 87, p. 400. 2½ columns. I.
- THE GOLD-FIELDS OF FRENCH GUIANA AND THE NEW METHOD OF DREDGING. By A. F. J. Bordeaux. T. A. I. M. E., vol. 41, p. 567. 28 pages. I.
- GOLD-BEARING GRAVELS IN FRENCH GUIANA. T. A. I. M. E., vol. 41, p. 575. 10 pages.
- GOLD MINES OF TIBET. By A. Del Mar. Min. & Sci. Press, vol. 100, p. 254. 3½ columns.
- GOLD MINING IN COLOMBIA. By F. L. Garrison. Min. & Sci. Press, vol. 98, p. 217. 12½ columns. I.
- PASTO GOLD DISTRICT, COLOMBIA. Min. & Sci. Press, vol. 100, p. 583. 2 columns. I.
- QUARTZ MINES IN COLOMBIA, SOUTH AMERICA. By F. F. Sharpless. Min. & Sci. Press, vol. 97, p. 422. 4½ columns. I.
- GOLD MINING IN COLOMBIA. By F. L. Garrison. Min. Mag., London, vol. 2, p. 369. 15½ columns. I.
- THE FUTURE GOLD OUTPUT OF COLOMBIA. By H. G. Granger. T. A. I. M. E., vol. 39, p. 315. 10 pages.
- ALLUVIAL GOLD DEPOSITS AND MINING IN COLOMBIA. By P. A. Alij.

- E. & M. J., vol. 90, p. 1098. 4 columns.
- COLOMBIAN GOLD PLACERS. T. A. I. M. E., vol. 39, p. 418. 1 page. Table.
- PRIMARY GOLD IN COLORADO GRANITE. By J. B. Hastings. T. A. I. M. E., vol. 39, p. 97. 6 pages. I.
- LESSONS FROM GILPIN COUNTY PRACTICE. By G. E. Collins. Min. & Sci. Press, vol. 101, p. 366. 11½ columns.
- THE ALICE MINE: Colorado's Largest Ore Body. By R. L. Herrick. M. & M., vol. 29, p. 294. 6 columns. I.
- REPORT ON THE POVERTY GULCH MINE. By C. W. Henderson. M. & M., vol. 31, p. 586, 5½ columns, I.; p. 694, 7 columns, I.
- GOLD ORE NEAR NEWCASTLE, COLORADO. By F. Rickard. Min. & Sci. Press, vol. 99, p. 503. 1 column. I.
- THE SAN JUAN REGION, COLORADO. By T. T. Read. Min. & Sci. Press, vol. 97, p. 632, 8 columns, I.; p. 668, 10 columns, I.
- GOLD DEPOSITS OF SAN JUAN, COLORADO. By W. C. Prosser. M. & M., vol. 31, p. 335. 5 columns. I.
- MINING IN THE SAN JUAN, COLORADO. By W. H. Storms. Min. & Sci. Press, vol. 101, p. 610, 5½ columns, I.; p. 737, 6½ columns, I.; p. 865, 3½ columns, I.
- THE CRESSON MINE, CRIPPLE CREEK, COLORADO. By R. L. Herrick. M. & M., vol. 31, p. 735. 11½ columns. I.
- LA PLATA MOUNTAINS, COLORADO. By R. H. Toll. Min. & Sci. Press, vol. 97, p. 741. 6½ columns. Map.
- TREASURE MOUNTAIN, COLORADO. By C. W. Purington. Min. & Sci. Press, vol. 97, p. 23. 5½ columns. I.
- LAKE FORK EXTENSION OF THE SILVERTON MINING AREA, COLORADO. By L. W. Woolsey. U. S. G. S. Bull. 315, p. 26. 5 pages. 1906.
- MINING IN GEORGETOWN QUADRANGLE. By S. H. Ball. M. & M., vol. 30, p. 205. 9½ columns. Map.
- HOHNS PEAK, COLORADO. E. & M. J., vol. 86, p. 809. 2½ columns. I.
- GOLD PLACER DEPOSITS NEAR FAY, ROUTT COUNTY, COLORADO. By H. S. Gale. U. S. G. S., Bull. 340, p. 84. 13 pages. I. 1907.
- THE BLACK HILLS OF SOUTH DAKOTA. By W. H. Storms. Min. & Sci. Press, vol. 101, p. 114, 5 columns, I.; p. 144, 7 columns, I.; p. 264, 7 columns, I.; p. 500, 6 columns; p. 571, 6 columns; p. 669, 6 columns, I.
- DRY PLACERS OF THE BLACK HILLS. Min. & Sci. Press, vol. 101, p. 571. 1½ columns.
- PLACERS OF THE BLACK HILLS, SOUTH DAKOTA. Min. & Sci. Press, vol. 101, p. 573. 2 columns.
- GOLD MINING INDUSTRY IN THE DUTCH EAST INDIES. By E. A. Winton. E. & M. J., vol. 88, p. 513. 4½ columns. Map.
- OCCURRENCE OF AURIFEROUS AND STANIFEROUS TOURMALINE IN SUMATRA. By L. Hundeshagen. E. & M. J., vol. 87, p. 1003. ¼ column.
- GOLD MINING IN EGYPT. By C. S. Herzig. Min. & Sci. Press, vol. 95, p. 212. 4½ columns. I.
- AN ENGLISH GOLD MINE. E. & M. J., vol. 86, p. 98. ¼ column.
- THE BRITISH GOLD FIELDS, ENGLAND. Min. Mag., vol. 2, p. 282, 3 pages; p. 376, 2 pages.
- GOLD MINING IN FRANCE. By T. A. Rickard. Min. Mag., London, vol. 1, p. 283. 4 columns. I.
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- THE GREATEST GOLD MINE OF FRANCE. By T. T. Read. Min. Mag. London, vol. 4, p. 209. 7 columns. I.
- THE THREE PRODUCING GOLD MINES OF FRANCE. By E. Walch. E. & M. J., vol. 87, p. 792. 6 columns. I.

- GOLD DEPOSITS OF GEORGIA.** By E. K. Soper. Min. & Sci. Press, vol. 100, p. 923. $3\frac{3}{4}$ columns.
- MOORE'S GOLD MINES, DAHLONEGA, GEORGIA.** Min. Mag., vol. 2, p. 24. 3 pages.
- THE GOLD PLACERS OF LUMPKIN COUNTY, GEORGIA.** Min. Mag., vol. 10, p. 457. 20 pages.
- ATLANTA GOLD DISTRICT, IDAHO.** By R. N. Bell. E. & M. J., vol. 86, p. 176. 4 columns. I.
- BOISE BASIN, IDAHO.** By W. A. Scott. Min. & Sci. Press, vol. 101, p. 76. 6 columns. I.
- GOLD MINING IN KOREA, 1910.** By J. D. Hubbard. Min. & Sci. Press, vol. 101, p. 236. 5 columns. I.
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- THE PLACER DEPOSITS OF KOREA.** T. A. I. M. E., vol. 39, p. 266. 2 pages. I.
- COPPER-GOLD SMELTING AT MAGISTRAL.** By R. Linton. Min. & Sci. Press, vol. 97, p. 843. $6\frac{1}{4}$ columns. I.
- THE ARTEAGA MINING DISTRICT, CHIHUAHUA, MEXICO.** E. & M. J., vol. 89, p. 618. 3 columns. I.
- ARTEAGA DISTRICT, CHIHUAHUA, MEXICO.** By W. B. Winston. Min. & Sci. Press, vol. 98, p. 829. $3\frac{1}{4}$ columns. I.
- THE CALABACILLAS MINE, CHIHUAHUA.** By R. T. Sill. E. & M. J., vol. 90, p. 359. $1\frac{3}{4}$ columns. I.
- MINING OPERATIONS IN THE STATE OF CHIHUAHUA, MEXICO.** By W. H. Seamon. E. & M. J., vol. 90, p. 654. $6\frac{1}{2}$ columns.
- THE ARTEAGA DISTRICT, CHIHUAHUA.** By L. T. Pockman. E. & M. J., vol. 90, p. 656. $3\frac{1}{2}$ columns. I.
- YOQUIVO MINE AND MILL, WESTERN CHIHUAHUA.** By W. H. Seamon. E. & M. J., vol. 90, p. 811. 4 columns. I.
- PACHUCA DISTRICT, MEXICO.** By J. L. Menuell. Min. & Sci. Press, vol. 100, p. 455. 3 columns. I.
- SANTA GERTRUDE'S AND LA BLANCA MINES, PACHUCA, MEXICO.** E. & M. J., vol. 88, p. 670. 1 column. I.
- THE SANTA GERTRUDE'S MINE, PACHUCA, MEXICO.** E. & M. J., vol. 89, p. 214. 9 columns. I.
- SOME FEATURES OF MINING AT PACHUCA, MEXICO.** E. & M. J., vol. 86, p. 1051. $4\frac{1}{4}$ columns.
- SAN RAFAEL Y ANEXAS MINING COMPANY, PACHUCA, MEXICO.** By E. Girault. E. & M. J., vol. 90, p. 643. 9 columns. I.
- LAS PILARES MINE, SONORA, MEXICO.** By E. M. Robb. M. & M., vol. 31, p. 106. $11\frac{1}{2}$ columns. I.
- OCCURRENCE OF GOLD AND SILVER ORES AT THE LAS PILARES MINE.** M. & M., vol. 106. $2\frac{1}{4}$ columns. I.
- MINAS PEDRAZZINI OPERATIONS NEAR ARIZPE, SONORA, MEXICO.** By E. L. Dufoureq. E. & M. J., vol. 90, p. 1105. $5\frac{1}{2}$ columns.
- MINING IN OAXACA, MEXICO.** By E. M. Lawton. Min. & Sci. Press, vol. 99, p. 232. $3\frac{1}{2}$ columns. I.
- THE ESPERANZA MINE, EL ORO, MEXICO.** By W. E. Hindry. Min. Mag., London, vol. 1, p. 131. $10\frac{1}{4}$ columns. I.
- ORE OF THE ESPERANZA MINE, MEXICO.** Min. & Sci. Press, vol. 99, p. 847. $2\frac{1}{2}$ columns.
- MINING IN THE ALAMOS AND ARTEAGA DISTRICTS.** By G. M. Bloomer. E. & M. J., vol. 87, p. 699. 6 columns. I.
- ALAMOS-PROMONITOS DISTRICT, MEXICO.** By T. P. Brinegar. Min. & Sci. Press, vol. 100, p. 553. 3 columns. I.
- MINING AND SMELTING AT ACHOTTA MINE, GUERRERO, MEXICO.** By W. B. Devereux, Jr. E. & M. J., vol. 90, p. 663.

- EL RAYO GOLD MINE, NEAR SANTA BARBARA, MEXICO. By C. T. Rice. E. & M. J., vol. 86, p. 78. 7 columns. I.
- SAN JOSE DE GRACIA, A GREAT MEXICAN GOLD CAMP. By E. A. H. Tays. E. & M. J., vol. 88, p. 640. 16 columns. I.
- MINING IN THE SETENTRION, MEXICO. By M. R. Lamb. Min. & Sci. Press, vol. 97, p. 782. 5 columns. I.
- THE LLUVIA DE ORO MINE. By E. A. H. Tays. Min. & Sci. Press, vol. 100, p. 59. 3 columns. I.
- CHICO, MEXICO. Min. & Sci. Press, vol. 101, p. 473. 4 columns.
- TOPOGRAPHICAL AND OTHER NOTES ON THE CHOIX-GUADALUPE Y CALVO MINING DISTRICT, MEXICO. By A. W. Warwick. Min. & Sci. Press, vol. 95, p. 686. 6 columns. I.
- MINES OF ZOMELAHUACAN, VERACRUZ, MEXICO. By M. Fishback. E. & M. J., vol. 90, p. 1017. 6½ columns. I.
- CONDITIONS AT THE PALMILLA MINE, PARRAL, MEXICO. By F. W. Smith. E. & M. J., vol. 90, p. 259. 11½ columns. I.
- HINDS CONSOLIDATED MINES, MEXICO. By S. F. Shaw. Min. & Sci. Press, vol. 97, p. 598. 3 columns. I.
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- JALISCO AND COLIMA, MEXICO. By W. A. Scott. Min. & Sci. Press, vol. 98, p. 254. 3 columns. I.
- THE MINES OF NORTHWESTERN ALTAR, SONORA, MEXICO. By G. W. Maynard. E. & M. J., vol. 86, p. 71. 5½ columns. I.
- THE ALTAR GOLD PLACER FIELDS OF SONORA, MEXICO. E. & M. J., vol. 90, p. 651. 6½ columns. I.
- DRY PLACERS IN NORTHERN SONORA, MEXICO. By F. J. H. Merrill. Min. & Sci. Press, vol. 97, p. 360. 2½ columns. I.
- MINING CEMENT GRAVEL AT ALTAR, MEXICO. By A. Coll. M. & M., vol. 31, p. 229. 4 columns. I.
- RECENT DEVELOPMENTS NEAR HELENA, MONTANA. E. & M. J., vol. 90, p. 354. 1½ columns. Map.
- RADERSBURG DISTRICT, MONTANA. Min. & Sci. Press, vol. 101, p. 170. 3 columns. D.
- NOTES ON THE GEOLOGY OF THE RADERSBURG DISTRICT, MONTANA. By D. C. Bard. E. & M. J., vol. 90, p. 599. 1 column.
- GOLD DEPOSITS OF THE LITTLE ROCKY MOUNTAINS, MONTANA. By W. H. Emmons. U. S. G. S., Bull. 340, p. 96. 20½ pages. I. 1907.
- THE GRANITE BIMETALLIC AND CABLE MINES, PHILIPSBURG QUADRANGLE, MONTANA. By W. H. Emmons. U. S. G. S., Bull. 315, p. 31. 25 pages. I. 1906.
- MINES OF MISSOULA COUNTY, MONTANA. By J. P. Rowe. M. & M., vol. 31, p. 581. 6½ columns. I.
- JUDITH BASIN, MONTANA. Min. & Sci. Press, vol. 101, p. 398. 4½ columns. I.
- GEOLOGICAL AND PHYSICAL CONDITIONS OF TONOPAH MINES. By W. P. Jenney. Min. & Sci. Press, vol. 99, p. 685. 3 columns. I.
- THE MINES AND MILLS OF TONOPAH, NEVADA. By G. E. Wolcott. E. & M. J., vol. 87, p. 594. 7 columns. I.
- THE GOLDFIELD TYPE OF ORE OCCURRENCE. By R. T. Hill. E. & M. J., vol. 86, p. 1096. 11½ columns. I.
- GOLDFIELD, NEVADA. By T. A. Rickard. Min. & Sci. Press, vol. 96, p. 559, 6¾ columns, I.; p. 664, 5 columns; p. 738, 6¾ columns, I.; p. 774, 6¾ columns, I.; p. 840, 8 columns, I.; vol. 97, p. 20, 4¾ columns, I.; p. 50, 7½ columns, I.

- GOLDFIELD AND THE GOLDFIELD DISTRICT OF NEVADA. By J. Tyssowski. E. & M. J., vol. 87, p. 1229. 6 columns. I.
- RAWHIDE, NEVADA. By A. Del Mar. E. & M. J., vol. 85, p. 853. 6 columns. I.
- RAWHIDE, NEVADA. By W. F. Boericke. E. & M. J., vol. 85, p. 565. 1 column.
- NOTES ON RAWHIDE, NEVADA. Min. & Sci. Press, vol. 96, p. 424. 3½ columns.
- ORE FORMATION IN THE WONDER DISTRICT, NEVADA. By E. A. Ritter. E. & M. J., vol. 87, p. 290. 7 columns. I.
- MONTGOMERY-SHOSHONE MINE. By A. H. Martin. Min. & Sci. Press, vol. 100, p. 289. 3 columns. I.
- KIMBERLY, NEVADA. By J. A. Carpenter. Min. & Sci. Press, vol. 100, p. 482. 3 columns. I.
- MINING AND MILLING AT RAWHIDE, NEVADA. By G. E. Wolcott. E. & M. J., vol. 87, p. 345. 11 columns. I.
- THE SEVEN TROUGHS MINING DISTRICT. By W. M. Hanck. E. & M. J., vol. 85, p. 644. 4 columns. I.
- SEVEN TROUGHS DISTRICT OF NEVADA. By F. L. Ransome. Min. & Sci. Press, vol. 99, p. 790. 6½ columns.
- MANHATTAN, NEVADA. E. & M. J., vol. 86, p. 1002. 3¼ columns. I.
- NOTES ON THE MANHATTAN PLACERS, NYE COUNTY, NEVADA. By C. C. Jones. E. & M. J., vol. 88, p. 101. 8 columns. I.
- MINES AND PLANTS OF THE PITTSBURG SILVER PEAK. By H. Hanson. Min. & Sci. Press, vol. 98, p. 657. 9¾ columns. I.
- CAMP ALUNITE, A NEW NEVADA GOLD DISTRICT. By R. T. Hill. E. & M. J., vol. 86, p. 1203. 11 columns. I.
- REMINISCENCES OF GOLDFIELD, NEVADA. By M. R. Lamb. E. & M. J., vol. 87, p. 441. 5 columns.
- BANNOCK, NEVADA. By C. S. Thomas. Min. & Sci. Press, vol. 99, p. 820. 1 column. I.
- ROUND MOUNTAIN, NEVADA. By F. L. Ransome. Min. & Sci. Press, vol. 99, p. 568. 2½ columns. I.
- ROUND MOUNTAIN, NEVADA. By F. L. Ransome. U. S. G. S., Bull. 380, p. 44. 4 pages. I. 1908.
- ROUND MOUNTAIN, NEVADA. By G. A. Packard. Min. & Sci. Press, vol. 96, p. 807. 4½ columns. I.
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THE ZUEBLIN SYSTEM OF ORE CHUTES. By A. Gradenwitz. E. & M. J., vol. 90, p. 902. 1½ columns. I.

DEVICE FOR CLEARING A HUNG-UP CHUTE. By J. B. Wilson. E. & M. J., vol. 89, p. 696. 1½ columns. I.

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PECK'S CENTRIFUGAL ELEVATORS. By W. Peck. T. Au. I. M. E., vol. 10, p. 265. 4 pages. I.

GATES' ELEVATORS. Min. & Sci. Press, vol. 96, p. 715. 2½ columns. I.

HIGH SPEED ELEVATORS. By W. W. Lighthipe. Sch. Mines Quart., vol. 29, p. 321. 6 pages. I.

DETAILED CONSTRUCTION OF ELEVATORS IN THE CŒUR D'ALENE MILLS. E. & M. J., vol. 89, p. 21. 11 columns. I.

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MECHANICAL ELEVATOR FOR ELEVATING GRAVEL IN MINING. By T. A. Rickard. Min. & Sci. Press, vol. 98, p. 415. 6½ columns. I.

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THE CRAMP SAFETY DEVICE FOR ATTACHING TO MINE CAGES. By E. D. Spencer. T. I. M. E., vol. 36, p. 156. 5 pages. I.

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A NEW SAFETY-CATCH FOR ARRESTING CAGES IN SHAFTS. By J. Harrison and R. Oliver. T. I. M. E., vol. 37, p. 189. 2 pages. I.

A SAFETY DEVICE FOR CAGES AT THE CHAPIN MINE. E. & M. J., vol. 88, p. 745. 1 column. I.

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Ropes, Chains, Couplings, Guides, Crossheads, Etc.

SAFETY SINKING HOOKS. By H. Louis. E. & M. J., vol. 85, p. 817. $1\frac{1}{2}$ columns. I.

SAFETY SINKING HOOK. E. & M. J., vol. 86, p. 94. $\frac{1}{2}$ column. I.

SWIVEL HOOK FOR HOISTING. E. & M. J., vol. 89, p. 601. $\frac{1}{2}$ column. I.

ATTACHMENT BETWEEN ROPE AND SINKING BUCKET. By C. B. Brodigan. Min. & Sci. Press, vol. 95, p. 467. 1 column. I.

HOISTING ROPE CONNECTION: Hook and Capping. E. & M. J., vol. 86, p. 185. 1 column. I.

See also CONNECTIONS FOR WIRE ROPES, ETC.

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CHAINS AND CHAIN MAKING. By J. H. Baker. P. E. Soc. W. Pa., vol. 24, p. 221. 20 pages. I.

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SAFETY CROSSHEAD FOR BUCKET SHAFT. E. & M. J., vol. 89, p. 1262. $\frac{2}{3}$ column. I.

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SHAFT GUIDES. P. C. M. & M. Soc. S. A., vol. 8, p. 264, $\frac{1}{2}$ column; p. 349, 1 column; vol. 9, p. 17, $\frac{1}{2}$ column, I.

STEEL SHAFT GUIDES. E. & M. J., vol. 86, p. 1010. $\frac{1}{2}$ column. I.

GUIDE AND GUIDE SUPPORTS IN THE FILBERT MINE, PENNSYLVANIA. M. & M., vol. 30, p. 560. I.

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SPRING FORMULÆ SIMPLIFIED. By C. B. Albree. P. E. Soc. W. Pa., vol. 24, p. 433. 16 pages. D.

See also COST OF HOISTING and COST OF ROPES.

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LANDING CHAIRS FOR MINE CAGE. By J. C. Houston. E. & M. J., vol. 90, p. 7. 1 column. I.

HYDRAULIC LANDING CHAIRS. By M. Clapier. E. & M. J., vol. 88, p. 1233. $2\frac{1}{2}$ columns. I.

CHAIRS ON THE CAGE. E. & M. J., vol. 89, p. 258. $\frac{1}{2}$ column. I.

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WAGE SCALE FOR MINE WORK IN THE DOMINION NO. 2 COLLIERY, CAPE BRETON ISLAND. *J. C. M. I.*, vol. 13, p. 643. Table.

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CLUB HOUSE AT MOUNTAIN IRON, MINNESOTA. *M. & M.*, vol. 29, p. 495. $1\frac{1}{2}$ columns. I.

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THE "PASS" SYSTEM OF WORKING IN THE COMSTOCK MINES. *Min. & Sci. Press*, vol. 100, p. 420. $\frac{1}{3}$ column.

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BONUS SYSTEM EMPLOYED IN SMELTER IN URAL MOUNTAINS. *E. & M. J.*, vol. 90, p. 611. $\frac{1}{2}$ column.

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ROUTINE ASSAYING ON THE RAND. By A. Whitby. P. C. M. & M. Soc. S. A., vol. 6, p. 264, 18½ columns, I.; p. 342, 5½ columns; p. 367, 3½ columns, I.; vol. 7, p. 10, 1 column; p. 33, 5¼ columns.

ROUTINE ASSAYING ON A WESTRALIAN MINE. By W. B. Blyth. P. C. M. & M. Soc. S. A., vol. 9, p. 184, 7½ columns; p. 347, 3 columns; p. 393, 2 columns.

NOTES ON ROUTINE MINE SAMPLE ASSAYING. P. C. M. & M. Soc. S. A., vol. 8, p. 54. 2½ columns.

PREPARING AND RECORDING SAMPLES FOR USE IN TECHNICAL ASSAY LABORATORIES. By L. D. Huntoon. T. A. I. M. E., vol. 40, p. 747. 8 pages.

A PORTABLE ASSAY FURNACE. By J. J. Gillio. T. A. I. M. E., vol. 10, p. 270. 5½ pages. I.

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- TWO PORTABLE ASSAY FURNACES. By E. W. Buskett. E. & M. J., vol. 85, p. 1150. 2 columns. I.
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- See also DEFINITIONS AND TERMS.
- See also WEIGHTS AND MEASURES and CONCENTRATION.

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- BLAST FURNACES IN THE GRANBY SMELTER.** M. & M., vol. 30, p. 525. 2 columns. I.
- BLAST FURNACES AT THE YAMPA SMELTER, BINGHAM, UTAH.** M. & M., vol. 31, p. 16. 2 $\frac{1}{2}$ columns.
- THE CANANEA BLAST FURNACE.** By C. F. Shelby. E. & M. J., vol. 85, p. 841. 16 columns. I.
- COPPER BLAST FURNACE SMELTING AT ANACONDA.** By C. Offerhaus. E. & M. J., vol. 88, p. 243. 19 columns. I.

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See also METALLURGY OF COPPER.

Pyritic Smelting of Copper

THE DEVELOPMENT OF PYRITIC SMELTING. By R. C. Sticht. T. Au. I. M. E., vol. 11, p. 1. 70 pages.

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NEGATIVE RESULTS IN PYRITIC SMELTING. E. & M. J., vol. 85, p. 325. 4 columns; p. 373, 4½ columns.

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Reverberatory Smelting of Copper

REVERBERATORY VS. BLAST FURNACES. By H. P. Collins. E. & M. J., vol. 89, p. 619. 2 columns.

REVERBERATORY COPPER SMELTING. By E. B. Wilson. M. & M., vol. 31, p. 557. 8½ columns. I.

REGENERATIVE REVERBERATORY COPPER FURNACE. By F. A. Leas. E. & M. J., vol. 86, p. 898. 8 columns. I.

THEORETICAL NOTES ON REVERBERATORY FURNACES. By C. A. Grabill. E. & M. J., vol. 89, p. 826. 8½ columns.

REVERBERATORY FURNACE PRACTICE. By W. A. Heywood. E. & M. J., vol. 89, p. 407. 1½ columns.

RECENT REVERBERATORY SMELTING PRACTICE. By R. R. Moore. E. & M. J., vol. 89, p. 1021, 10½ columns; p. 1063, 7½ columns.

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MAGNETIC OXIDE IN MATTE. By E. L. Larison. E. & M. J., vol. 87, p. 1195. 3 columns.

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EXPERIMENTS IN REVERBERATORY PRACTICE AT CANANEA, MEXICO. By L. D. Ricketts. T. I. M. & M., vol. 19, p. 147. 39 pages. I.

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Refining of Copper

ELECTROLYTIC COPPER REFINERY. Min. & Sci. Press, vol. 101, p. 75. 1½ columns.

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Electro-Metallurgy

ELECTRIC SMELTING OF ORE AT HEROULT, CALIFORNIA. By J. Tysowski. E. & M. J., vol. 90, p. 269. 8½ columns. I.

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Glass Making

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QUESTIONS ARISING IN THE MAKING OF GLASS. By R. L. Frink. P. E. Soc. W. Pa., vol. 23, p. 646. 10 pages. I.

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See also **OCCURRENCE OF GLASS SANDS.**

Metallurgy of Gold and Silver

PREPARATION OF THE ORES OF SILVER-LEAD, AND COPPER, AND THEIR METALLURGICAL TREATMENT AT THE WORKS AT LOZÈRE, FRANCE. By M. Lau. Min. Mag., vol. 7, p. 219, 11½ pages; p. 470, 6 pages.

THE METALLURGICAL TREATMENT OF THE SULPHO TELLURIDE ORES OF KALGOORLIE, WITH SPECIAL REFERENCE TO EXPERIMENTS CONDUCTED AND SULPHIDE MILL ERRECTED ON THE ASSOCIATED GOLD MINES OF WESTERN AUSTRALIA, LIMITED. By L. W. Grayson. T. Au. I. M. E., vol. 7, p. 170, 20 pages; vol. 8, pt. 1, p. 114, 13 pages.

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Smelting Gold and Silver

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- ELECTROCHEMISTRY OF SOLUTION OF GOLD IN POTASSIUM CYANIDE. P. C. M. & M. Soc. S. A., vol. 10, p. 21. 2½ columns.
- CONTINUOUS COLLECTION OF SAND FOR CYANIDING. By W. A. Caldecott. Min. & Sci. Press, vol. 99, p. 659. 4 columns.
- THE CONTINUOUS COLLECTION OF SAND FOR CYANIDING. By W. A. Caldecott. P. C. M. & M. Soc. S. A., vol. 10, p. 43, 2½ columns, I.; p. 142, 2 columns; p. 238, 2½ columns.
- SAND COLLECTING AND WASHING. P. C. M. & M. Soc. S. A., vol. 8, p. 391. 1¼ columns.
- See also SAND TREATMENT.
- NOTES ON THE PRECIPITATING EFFECTS OF SUBSTANCES CONTAINING VARIOUS FORMS OF CARBON AND CELLULOSE ON CYANIDE SOLUTIONS CONTAINING GOLD AND SILVER. By A. J. Clark and W. J. Sharwood. P. C. M. & M. Soc. S. A., vol. 10, p. 234, 8 columns; p. 405, 1 column.
- PRECIPITATION FROM CYANIDE SOLUTIONS BY ZINC SHAVINGS AND DUST: A Comparison of Results and Costs. By A. J. Clark. P. C. M. & M. Soc. S. A., vol. 9, p. 222, 3 columns; vol. 10, p. 205, 3 columns.
- EXPERIMENTS ON THE PRECIPITATION OF GOLD FROM CYANIDE SOLUTION BY CARBON IN LIME. By E. H. Croghan. P. C. M. & M. Soc. S. A., vol. 10, p. 391. 5 columns.
- PRECIPITATION OF GOLD BY CARBONACEOUS MATTER. By W. A. Caldecott. Min. & Sci. Press, vol. 98, p. 828. 1½ columns.
- ZINC BOX WHITE PRECIPITATES. By R. F. Coolidge. Min. & Sci. Press, vol. 99, p. 394. 4 columns.
- ELECTRICAL PRECIPITATION FROM CYANIDE SOLUTIONS. E. & M. J., vol. 89, p. 598. 1½ columns.
- ELECTROLYTIC PRECIPITATION. By M. R. Lamb. E. & M. J., vol. 87, p. 705. 2 columns.
- PRECIPITATION OF GOLD AND SILVER BY SOLUBLE SULPHIDES. E. & M. J., vol. 87, p. 841. 1¼ columns.
- NOTES ON PRECIPITATION. By M. Smith. P. C. M. & M. Soc. S. A., vol. 9, p. 300. 4½ columns; p. 351, 1¼ columns.
- ZINC DUST PRECIPITATION. By A. J. Clark. Min. Mag. London, vol. 4, p. 289. 7½ columns. I.
- ZINC DUST PRECIPITATION AT THE HOMESTAKE MINE. By R. Linton. E. & M. J., vol. 88, p. 199. 1¼ columns.
- ZINC DUST PRECIPITATION AT CERRO-PRIETO. By R. Linton. P. C. M. & M. Soc. S. A., vol. 10, p. 60. 2½ columns.
- ZINC DUST PRECIPITATION AT MERCUR, UTAH. E. & M. J., vol. 86, p. 79. 1 column.
- ZINC DUST PRECIPITATION AT CERRO-PRIETO. By Robt. Linton. P. C. M. & M. Soc. S. A., vol. 9, p. 74, 5 columns; p. 165, 3 columns; p. 207, 1½ columns; p. 232, 1 column.

- ZINC BOX PRECIPITATION AT PARRAL, MEXICO.** E. & M. J., vol. 86, p. 122. $1\frac{3}{4}$ columns.
- THE "WHITE PRECIPITATE" OF THE PRECIPITATING BOXES IN THE CYANIDE WORKS.** By A. Prister. P. C. M. & M. Soc. S. A., vol. 5, p. 62, 1 column; p. 75, 8 columns; p. 129, $10\frac{1}{2}$ columns; p. 148, $5\frac{1}{4}$ columns; p. 171, 6 columns; p. 310, $1\frac{3}{4}$ columns.
- DE WILDE PRECIPITATION PROCESS.** By G. Witteveen. M. & M., vol. 31, p. 342. $3\frac{1}{2}$ columns.
- THE TREATMENT OF SLIMES BY CYANIDATION AND ELECTRICAL PRECIPITATION ON MERCURY.** By F. T. Mumford. T. A. I. M. E., vol. 9, p. 96. 10 pages. I.
- CYANIDING SLIME.** By M. R. Lamb. T. A. I. M. E., vol. 40, p. 775. $4\frac{1}{2}$ pages. I.
- SLIME TREATMENT IN CYANIDING.** T. A. I. M. E., vol. 40, p. 768. 6 pages. I.
- CYANIDING SLIME.** T. A. I. M. E., vol. 40, p. 775. $4\frac{1}{2}$ pages. I.
- SETTLING SLIME IN CYANIDE TREATMENT.** P. C. M. & M. Soc. S. A., vol. 9, p. 411. 1 column.
- IMPROVEMENTS IN SLIME TREATMENT.** By M. Torrente. P. C. M. & M. Soc. S. A., vol. 5, p. 46, $6\frac{1}{2}$ columns, I.; p. 83, $1\frac{1}{2}$ columns; p. 100, $1\frac{3}{4}$ columns; p. 127, 3 columns; p. 150, 4 columns; p. 179, $3\frac{1}{2}$ columns.
- NOTES ON IMPROVEMENTS IN THE CYANIDE TREATMENT OF SANDS AND SLIMES.** By C. H. Pead. P. C. M. & M., Soc. S. A., vol. 6, p. 76, 4 columns; p. 194, 2 columns; p. 223, 3 columns; p. 249, $3\frac{1}{2}$ columns.
- COLLOIDAL SILICIC ACID IN SLIMES.** By W. A. Caldecott. P. C. M. & M. Soc. S. A., vol. 7, p. 217. 1 column.
- THE TREATMENT OF ACCUMULATED SLIME, AND THE USE OF FILTER PRESSES FOR CLARIFYING SLIME SOLUTION AND BY-PRODUCTS.** By J. D. O'Hara. P. C. M. & M. Soc. S. A., vol. 10, p. 342, 5 columns; p. 403, 2 columns, I.
- TREATMENT OF A CONCENTRATE-SLIME.** By A. E. Drucker. Min. & Sci. Press, vol. 96, p. 458. 5 columns. I.
- THE SEPARATION OF SLIME IN CYANIDE TREATMENT.** By H. G. Nichols. Min. & Sci. Press, vol. 96, p. 563. 7 column. I.
- TREATMENT OF SLIME IN THE CYANIDE PROCESS.** Min. & Sci. Press, vol. 100, p. 798. 4 columns. I.
- SLIME TREATMENT IN CYANIDING.** Min. & Sci. Press, vol. 100, p. 44. 5 columns. I.
- A METHOD OF SETTLING SLIMES, AS APPLIED TO THEIR SEPARATION FROM SOLUTION IN CYANIDE TREATMENT.** By H. G. Nichols. T. I. M. & M., vol. 17, p. 293. 38 pages. I.
- CYANIDE TREATMENT OF SLIME.** P. C. M. & M. Soc. S. A., vol. 10, p. 322. $3\frac{1}{2}$ columns.
- METHOD OF TESTING SLIME.** By G. J. Young. Min. Mag., London, vol. 3, p. 133. $2\frac{1}{2}$ columns. I.
- SLIME TREATMENT BY CYANIDATION.** E. & M. J., vol. 88, p. 688. $5\frac{1}{2}$ columns.
- A PROPOSED NEW SYSTEM FOR THE CYANIDE TREATMENT OF SLIMES.** By F. McCann. E. & M. J., vol. 88, p. 688. $5\frac{1}{2}$ columns.
- CYANIDING SLIMES.** E. & M. J., vol. 89, p. 462. $1\frac{1}{2}$ columns. I.
- ALL-SLIME TREATMENT OF ORE IN CYANIDE PLANTS.** By H. A. McGraw. E. & M. J., vol. 89, p. 319. 5 columns. I.
- CYANIDING SLIMES.** E. & M. J., vol. 89, p. 319. 5 columns. I.
- CYANIDING SLIME: PROCESS.** By E. B. Wilson. M. & M., vol. 29, p. 59. 6 columns. I.
- SLIME TREATMENT IN CYANIDING.** By E. B. Wilson. M. & M., vol. 29, p. 59. 6 columns. I.

- SLIME TREATMENT IN CYANIDING. M. & M., vol. 29, p. 129, 9 columns, I.; p. 187, 3 columns, I.; p. 224, 6 columns, I.
- SLIMING ORE FOR CYANIDATION. By M. R. Lamb. Min. & Sci. Press, vol. 95, p. 658. $1\frac{1}{2}$ columns.
- SLIME SETTLING BEFORE CYANIDING. E. & M. J., vol. 87, p. 837. 3 columns. I.
- ALL-SLIMING. By E. M. Hamilton. Min. & Sci. Press, vol. 99, p. 255. $5\frac{1}{2}$ columns. I.
- THE CHEMICAL CONTROL OF SLIMES. By H. E. Ashley. T. A. I. M. E., vol. 41, p. 380. 16 pages. I.
- SLIME TREATMENT AT VARIOUS CYANIDE PLANTS. Min. & Sci. Press, vol. 95, p. 46. $4\frac{1}{2}$ columns.
- THE UTILIZATION OF WASTE HEAT IN SLIMES TREATMENT. By A. Salkinson. P. C. M. & M. Soc. S. A., vol. 7, p. 403, 6 columns; vol. 8, p. 52, 1 column; p. 81, $7\frac{1}{2}$ columns; p. 142, $6\frac{1}{4}$ columns.
- FURTHER NOTES ON THE UTILIZATION OF WASTE HEAT IN SLIMES TREATMENT. By A. Salkinson. P. C. M. & M. Soc. S. A., vol. 9, p. 308. $3\frac{1}{4}$ columns.
- PROPOSED PROCESS FOR TREATMENT OF ZINC GOLD SLIMES BEFORE SMELTING. By C. E. Meyer. P. C. M. & M. Soc. S. A., vol. 6, p. 361, 6 columns; p. 83, 1 column; p. 139, 2 columns.
- THE DORR CONTINUOUS SLIME THICKENER. M. & M., vol. 30, p. 79. $1\frac{1}{4}$ columns. I.
- SLIME TREATMENT AT KALGOORLIE. By M. W. von Bernewitz. Min. & Sci. Press, vol. 95, p. 743. 2 columns. I.
- SLIME TREATMENT AT THE SANTA NATALIA MILL. By C. Shapeley. E. & M. J., vol. 90, p. 358. 4 columns. I.
- ALL-SLIME CYANIDE PROCESS AT HACIENDA DE LA UNION. E. & M. J., vol. 86, p. 991. 2 columns.
- SLIME TREATMENT AT THE TAJO, ROSARIO MILL, MEXICO. T. A. I. M. E., vol. 41, p. 345. 11 pages. I.
- SLIME TREATMENT AT THE NORTH STAR MINES, CALIFORNIA. E. & M. J., vol. 90, p. 410. 1 column.
- FILTER PRESS TREATMENT OF SLIMES. By H. R. Edmans. T. A. I. M. E., vol. 11, p. 77. $19\frac{1}{2}$ pages. I.
- NOTES ON THE USE OF THE FILTER PRESS FOR CLARIFYING SOLUTIONS. By S. J. Truscott and A. Yates. P. C. M. & M. Soc. S. A., vol. 7, p. 3, $2\frac{1}{2}$ columns; p. 45, 2 columns; p. 83, 2 columns; p. 269, $\frac{1}{4}$ column; p. 321, 2 columns.
- FILTERING SLIMES. By E. Parrish. Min. & Sci. Press, vol. 99, p. 493. $2\frac{1}{2}$ columns.
- FILTER PRESS WORK. M. & M., vol. 31, p. 600. 1 column. I.
- FILTER PRESSING SLIMES. By M. W. von Bernewitz. Min. & Sci. Press, vol. 101, p. 377. 3 columns.
- FILTER PRESS WORK IN CYANIDING CONCENTRATE. Min. & Sci. Press, vol. 100, p. 416. 3 columns. I.
- VACUUM FILTRATION. By A. Nichols. Min. & Sci. Press, vol. 100, p. 395. 2 columns. I.
- FILTER PRESSING. P. C. M. & M. Soc. S. A., vol. 10, p. 222. $\frac{1}{2}$ column.
- THE FILTER PRESS IN CYANIDING. By E. B. Wilson. M. & M., vol. 29, p. 129, 9 columns, I.; p. 187, 3 columns, I.; p. 224, 6 columns, I.
- FILTERING SLIMES IN CYANIDING. Min. & Sci. Press, vol. 95, p. 715. 3 columns. I.
- FILTERING GOLD SLIME. By E. Jensen. E. & M. J., vol. 87, p. 902. 2 columns. I.
- CONTINUOUS VACUUM-FILTER MACHINE. By B. Hunt. Min. & Sci. Press, vol. 97, p. 430. 3 columns. I.
- CONTINUOUS SLIME FILTER. By R. Schorr. Min. & Sci. Press, vol. 97, p. 194. 4 columns. I.

- OLIVER CONTINUOUS FILTER. By A. H. Martin. Min. & Sci. Press, vol. 99, p. 715. 2 columns. I.
- USE OF THE OLIVER CONTINUOUS FILTER AT THE NORTH STAR MINES, CALIFORNIA. E. & M. J., vol. 90, p. 411. 1 column. I.
- THE OLIVER FILTER PRESS AT GRASS VALLEY. E. & M. J., vol. 87, p. 440. $\frac{1}{2}$ column. I.
- THE OLIVER CONTINUOUS FILTER AT MINAS DEL TAJO. By G. A. Tweedy and R. L. Beals. E. & M. J., vol. 89, p. 506. 5 columns. I.
- THE BURT RAPID CYANIDE FILTER. By E. Burt. Min. & Sci. Press, vol. 95, p. 717. $3\frac{1}{2}$ columns. I.
- THE BUTTERS' SLIME-FILTER AT THE CYANIDE PLANT OF THE COMBINATION MINES COMPANY, GOLDFIELD, NEVADA. By M. R. Lamb. T. A. I. M. E., vol. 38, p. 200. 10 pages. I.
- THE BUTTERS' FILTER USED AT THE MONTEZUMA MILL, COSTA RICA. E. & M. J., vol. 90, p. 716. $\frac{3}{4}$ column.
- THE SWEETLAND FILTER PRESS. By E. J. Sweetland. E. & M. J., vol. 85, p. 359. 3 columns. I.
- THE HUNT CONTINUOUS SLIME FILTER. P. C. M. & M. Soc. S. A., vol. 10, p. 295. $1\frac{1}{2}$ columns.
- FILTERING SLIMES BY RIDGEWAY FILTER. E. & M. J., vol. 86, p. 121. 1 column.
- PRESSURE FILTRATION. By E. J. Sweetland. Min. & Sci. Press, vol. 99, p. 853. $4\frac{1}{2}$ columns. I.
- THE BLAISDELL PRESSURE FILTER. Min. & Sci. Press, vol. 95, p. 188. 1 column. I.
- VACUUM SLIME-FILTERS AT GOLDFIELD. By A. M. Smith. Min. & Sci. Press, vol. 99, p. 65. 2 columns.
- THE FAIRCHILD VACUUM-FILTER. Min. & Sci. Press, vol. 95, p. 279. 1 column. I.
- VACUUM SLIME-FILTERS. Min. & Sci. Press, vol. 95, p. 46. $4\frac{1}{2}$ columns.
- IMPROVEMENTS IN THE TREATMENT OF SLIME BY THE VACUUM-FILTER PROCESS. By A. W. Allen. E. & M. J., vol. 87, p. 1004. 3 columns. I.
- VACUUM-FILTER TREATMENT OF SLIMES. E. & M. J., vol. 87, p. 1004. 3 columns. I.
- VACUUM-FILTERING OF SLIME AT WAIHI, NEW ZEALAND. P. C. M. & M. Soc. S. A., vol. 8, p. 13. 2 columns.
- FILTRATION OF SLIMES AT EL ORO, MEXICO. By D. L. H. Forbes. E. & M. J., vol. 86, p. 458. $3\frac{3}{4}$ columns. I.
- FILTER PRESSES AT THE TAJO, ROSARIO MILL, MEXICO. T. A. I. M. E., vol. 41, p. 349. 12 pages.
- FILTER PRESS PRACTICE IN THE HOMESTAKE MILLS. Min. & Sci. Press, vol. 95, p. 21. $4\frac{1}{2}$ columns. I.
- SLIME TREATMENT AT THE EL ORO MILL, MEXICO. E. & M. J., vol. 87, pp. 688 and 689. 4 columns.
- See also SLIMES AND THEIR TREATMENT.
- SOME SUGGESTIONS ON THE CYANIDING OF TAILINGS. By A. Prister. P. C. M. & M. Soc. S. A., vol. 5, p. 338, $6\frac{1}{2}$ columns; vol. 6, p. 113, $1\frac{1}{2}$ columns; p. 190, $\frac{1}{4}$ column.
- A PROPOSED METHOD OF TREATING SAND RESIDUE DUMPS. By S. J. Truscott and A. Yates. P. C. M. & M. Soc. S. A., vol. 6, p. 213. $3\frac{1}{2}$ columns; vol. 7, p. 293, 3 columns.
- THE CYANIDING OF REFRACTORY TAILINGS ON THE WITWATERSRAND. By W. H. C. Lovely. T. A. I. M. E., vol. 11, p. 104. 9 pages.
- RE-TREATMENT OF TAILING AT OROYA-BROWN HILL. Min. Mag. London, vol. 4, p. 460. $1\frac{1}{2}$ columns. I. Flowsheet.
- See also SAND TREATMENT.

- CYANIDATION OF SILVER ORES. By W. J. Sharwood. Min. & Sci. Press, vol. 97, p. 418. 5 columns.
- CYANIDATION OF MANGANESE SILVER ORES. By E. M. Hamilton. Min. & Sci. Press, vol. 99, p. 756. 2½ columns.
- CYANIDATION OF SILVER ORES. By F. P. Holt. Min. & Sci. Press, vol. 98, p. 546. 4 columns. Tables.
- CYANIDATION OF SILVER ORES. By T. P. Holt. Min. & Sci. Press, vol. 99, p. 159. 6½ columns. D.
- CYANIDATION OF SILVER ORES. By D. Mosher. Min. & Sci. Press, vol. 98, p. 691. 5½ columns. I.
- CYANIDATION OF SILVER ORES. By L. B. Kniffin. Min. & Sci. Press, vol. 100, p. 322. 1½ columns.
- TREATMENT OF THE MOUNT REID AURIFEROUS ORES WITH THE HELP OF CYANIDE OF POTASSIUM. By L. Williams. T. Au. I. M. E., vol. 4, p. 45. 5 pages.
- EXPERIMENTS ON THE ASSAY OF ACID WASHES RESULTING FROM THE CYANIDE "CLEAN-UP" BY THE USE OF BISULPHATE. By L. J. Wilmoth. P. C. M. & M. Soc. S. A., vol. 10, p. 136. 5½ columns.
- THE USE OF THE BISULPHATE OF SODIUM IN THE CLEAN-UP. By J. E. Thomas and G. W. Williams. P. C. M. & M. Soc. S. A., vol. 5, p. 334, 7 columns; vol. 6, p. 82, 4 columns; p. 113, ¾ columns, p. 156, 3 columns.
- CYANIDE WORKS' CLEAN-UP PRACTICE. By J. E. Thomas. P. C. M. & M., Soc. S. A., vol. 7, p. 109, 3 columns; p. 181, 2½ columns; p. 211, 5 columns; p. 268, 1½ columns.
- NOTES ON LIME, CLEAN-UP, ETC. By G. W. Williams. P. C. M. & M., Soc. S. A., vol. 5, p. 251, 7½ columns; p. 314, 2 columns; vol. 6, p. 19, 4 columns; p. 51, 3 columns; p. 78, 5 columns.
- SOME FURTHER IMPROVEMENTS IN APPLIANCES FOR THE CYANIDE CLEAN-UP. By D. V. Burnett. P. C. M. & M. Soc. S. A., vol. 5, p. 145, 5 columns, I.; p. 211, 1¼ columns; p. 235, 2½ columns; p. 255, 1½ columns.
- CYANIDATION AT THE ALASKA-TREADWELL MINES. By T. A. Rickard. Min. Mag., London, vol. 3, p. 280. 2 columns.
- CYANIDING CRIPPLE CREEK DUMPS. M. & M., vol. 29, p. 444. ¼ column.
- CYANIDATION OF CRIPPLE CREEK ORES. By P. Argall. Min. & Sci. Press, vol. 101, p. 804. 3½ columns.
- CYANIDING AT THE MONTEZUMA MILL, COSTA RICA. E. & M. J., vol. 90, p. 716. 3 columns.
- CYANIDING AT THE NORTH STAR MINES, GRASS VALLEY. E. & M. J., vol. 87, p. 440. 3 columns. I.
- CYANIDING AT THE NORTH STAR MINES IN CALIFORNIA. By J. Tyssowski. E. & M. J., vol. 90, p. 409. 8¾ columns. I.
- CYANIDE PRACTICE AT THE HOMESTAKE MILLS. By F. L. Bosqui. Min. & Sci. Press, vol. 95, p. 21. 4½ columns. I.
- CYANIDING BLACK HILLS "BLUE ORES." By B. D. O'Brien. M. & M., vol. 29, p. 427. 9 columns.
- CYANIDING SILVER ORES IN HONDURAS. By G. E. Driscoll. Min. & Sci. Press, vol. 98, p. 388. 4½ columns. I.
- RECENT CYANIDE PRACTICE IN KOREA. By A. E. Drucker. Min. & Sci. Press, vol. 97, p. 458. 6 columns.
- CYANIDING AT MINAS DEL TAJO, SINALOA. E. & M. J., vol. 89. 7 columns. I.
- CYANIDE PRACTICE AT MINAS DEL TAJO, SINALOA, MEXICO. By G. A. Tweedy and R. L. Beals. E. & M. J., vol. 89, p. 566. 12 columns. I.
- CYANIDE PRACTICE AT EL TAJO MILL, JALISCO, MEXICO. E. & M. J., vol. 89, p. 274. 1½ columns. I.

- THE CYANIDE PRACTICE AT THE EL ORO MILL, MEXICO. E. & M. J., vol. 87, p. 683. 23 columns. I.
- CYANIDING AT TAJO, ROSARIO, MEXICO. T. A. I. M. E., vol. 41, p. 339. 30 pages. I.
- NOTES ON THE CYANIDATION OF SILVER-GOLD ORES AT GUANAJUATO, MEXICO. By J. A. Reid. J. M. Soc. N. S., vol. 14, p. 37. 12½ pages.
- DEVELOPMENT OF THE CYANIDE PROCESS FOR SILVER ORES IN MEXICO. By B. Macdonald. E. & M. J., vol. 85, p. 802. 4½ columns.
- CYANIDATION OF SILVER ORES AT GUANAJUATO, MEXICO. By B. Macdonald. E. & M. J., vol. 85, p. 710. 23 columns. I.
- PRESENT CYANIDE PRACTICE IN MEXICO. By M. R. Lamb. E. & M. J., vol. 85, p. 703. 20 columns. I.
- CYANIDING AT THE NEW ESPERANZA MILL, EL ORO, MEXICO. E. & M. J., vol. 86, p. 760. 5 columns. I.
- SILVER CYANIDING IN MEXICO. E. & M. J., vol. 86, p. 846. ¾ column.
- SILVER CYANIDING IN MEXICO. By J. B. Empson. E. & M. J., vol. 86, p. 667. 3½ columns.
- CYANIDATION OF SILVER ORES, PACHUCA, MEXICO. By C. T. Rice. E. & M. J., vol. 86, p. 647. 18½ columns. I.
- CYANIDE TREATMENT AT THE JESUS MARIA AND FLORES MILLS. E. & M. J., vol. 86, p. 616. 10 columns.
- CYANIDING AT THE YOQUIVO MILL, WESTERN CHIHUAHUA. E. & M. J., vol. 90, p. 812. 1 column.
- SILVER CYANIDING AT THE SAN RAFAEL MILL, PACHUCA. By E. Girault. E. & M. J., vol. 90, p. 67. 6½ columns. I.
- CYANIDING ORES IN MEXICO. By E. Girault. M. & M., vol. 30, p. 618. 5 columns. I.
- CYANIDATION OF SILVER ORE IN MEXICO. By W. A. Caldecott. Min. & Sci. Press, vol. 97, p. 294. 5 columns.
- CYANIDATION IN MEXICO. By F. J. Hobson. Min. & Sci. Press, vol. 97, p. 159, 4 columns; p. 182, 6 columns, I.
- MILLING AND CYANIDE PRACTICE, SAN PROSPERO MILL, GUANAJUATO. Min. & Sci. Press, vol. 97, p. 130. 5 columns.
- CYANIDATION OF SILVER ORE IN MEXICO. By W. A. Caldecott. Min. & Sci. Press, vol. 96, p. 426, 4½ columns; p. 594, 4 columns, I.
- CYANIDATION OF PAREAL SILVER ORES. By H. T. Willis. Min. & Sci. Press, vol. 98, p. 488. 4 columns.
- CYANIDATION OF MANGANESE SILVER ORES OF MEXICO. By E. M. Hamilton. P. C. M. & M. Soc. S. A., vol. 10, p. 65. 3½ columns.
- THE CYANIDING OF SILVER ORES IN MEXICO. By A. F. J. Bordeaux. T. A. I. M. E., vol. 40, p. 764, 12 pages, I.; Discussion, p. 917, 2 pages.
- CYANIDING AT THE TONOPAH EXTENSION MILL. Min. & Sci. Press, vol. 100, p. 522. 4 columns.
- CYANIDING AT THE FLORENCE GOLDFIELD MILL. E. & M. J., vol. 89, p. 367. 2 columns.
- CYANIDING AT THE MONTGOMERY-SHOSHONE MILL. By P. E. Saun. E. & M. J., vol. 89, p. 217. 4½ columns. I.
- CYANIDING AT THE PITTSBURG SILVER PEAK MILL, NEVADA. M. & M., vol. 29, p. 569. 8½ columns. I.
- CYANIDING AT THE DESERT MILL, MILLERS, NEVADA. Min. & Sci. Press, vol. 95, p. 494. 8¾ columns. I.
- CYANIDATION AT THE GOLDFIELD MILL. E. & M. J., vol. 86, p. 471. 6 columns. I.
- CYANIDING AT GOLDFIELD, NEVADA. Min. & Sci. Press, vol. 96, p. 843. 1 column.
- CYANIDATION IN NEVADA. By A. G. Kirby. Min. & Sci. Press, vol. 96, p. 836. 8 columns.

- CYANIDATION IN NEVADA. By L. M. King. Min. & Sci. Press, vol. 96, p. 123. $5\frac{1}{2}$ columns.
- CYANIDING THE ORES OF EASTERN OREGON. By A. Del Mar. E. & M. J., vol. 89, p. 667. 2 columns.
- CYANIDATION IN THE MALAY STATES. By H. F. Lofts. P. C. M. & M. Soc. S. A., vol. 8, p. 340. 3 columns.
- RECONSTRUCTION OF THE AUGUSTIAS CYANIDE MILL. By H. A. Megraw. E. & M. J., vol. 90, p. 321. 6 columns. I.
- CYANIDING AT THE ASHANTI GOLDFIELDS. E. & M. J., vol. 89, p. 459. $1\frac{1}{2}$ columns.
- CYANIDATION AT MERCUR, UTAH. By L. A. Palmer. Min. & Sci. Press, vol. 98, p. 616. 7 columns. I.
- CYANIDING AT THE PITTSBURG SILVER PEAKS PLANT. Min. & Sci. Press, vol. 98, p. 659. $4\frac{1}{2}$ columns.
- DIRECT CYANIDING ON THE RAND. E. & M. J., vol. 87, p. 883. $\frac{1}{2}$ column.
- See also THE METALLURGY OF GOLD AND SILVER.
- See also COST OF METALLURGICAL TREATMENT.
- Cyaniding Plants**
- VARIABLES INFLUENCING CYANIDE PLANT DESIGN. By M. R. Lamb. E. & M. J., vol. 90, p. 8. $2\frac{1}{2}$ columns. I.
- SMALL CYANIDE PLANTS. E. & M. J., vol. 86, p. 457. 1 column.
- HOMEMADE CYANIDE PLANT. P. C. M. & M. Soc. S. A., vol. 9, p. 278. 2 columns.
- CYANIDING AT THE MONTANA-TONOPAH MINING COMPANY'S PLANT. Min. & Sci. Press, vol. 97, p. 324. $7\frac{1}{2}$ columns. I.
- CYANIDING AT THE NEVADA GOLDFIELD REDUCTION WORKS. Min. & Sci. Press, vol. 97, p. 254. $2\frac{1}{4}$ columns. I.
- THE STANDARD CONSOLIDATED CYANIDE MILL. By S. F. Shaw. E. & M. J., vol. 87, p. 483. $6\frac{1}{2}$ columns. I.
- CYANIDING AT PLANT OF THE SIMMER DEEP AND JUPITER REDUCTION WORKS. Min. & Sci. Press, vol. 99, p. 397. 5 columns. I.
- A SKETCH OF THE SMALL CYANIDE PLANT AS ERECTED AND WORKED IN RHODESIA. By F. J. Thomas. P. C. M. & M. Soc. S. A., vol. 10, p. 82, 7 columns; p. 207, $2\frac{1}{2}$ columns.
- SLIME PLANT OF THE SIMMER DEEP AND JUPITER REDUCTION WORKS. Min. & Sci. Press, vol. 99, p. 398. $1\frac{1}{2}$ columns.
- CYANIDE MILLS, GUANAJUATO DEVELOPMENT COMPANY. By C. T. Rice. E. & M. J., vol. 86, p. 947, $11\frac{3}{4}$ columns, I.; p. 997, 15 columns, I.
- VETA COLORADO CYANIDE MILL, PARRAL, MEXICO. By C. T. Rice. E. & M. J., vol. 86, p. 120. 8 columns.
- AN ALL-SLIME CYANIDE PLANT AT GUANAJUATO, MEXICO. By E. Shapley. E. & M. J., vol. 88, p. 68. $1\frac{3}{4}$ columns.
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- DESCRIPTION OF A CHEAP CYANIDE PLANT ERECTED IN WESTERN AUSTRALIA. By E. M. Weston. P. C. M. & M. Soc. S. A., vol. 5, p. 23. $2\frac{1}{2}$ columns.
- REGENERATING COPPER CYANIDE SOLUTION. By R. P. Wheelock. Min. & Sci. Press, vol. 100, p. 397. 3 columns.
- See also FINE CRUSHING BY MILLS, ETC.
- Chlorination Processes**
- CHLORINATION IN CALIFORNIA. By W. E. Darrow. Min. & Sci. Press, vol. 97, p. 609. $3\frac{3}{4}$ columns.

- REFINING GOLD BY CHLORINE GAS.** Min. & Sci. Press, vol. 22, p. 278, 1½ columns; p. 297, 1½ columns.
- THE MALM DRY CHLORINATION PROCESS.** By R. L. Herrick. M. & M., vol. 30, p. 370. 9 columns. I.
- MALM PROCESS IN COLORADO: A Dry Chlorination Process.** By F. Rickard. Min. & Sci. Press, vol. 99, p. 662. 2½ columns.
- DRY CHLORINATION OF SULPHIDE ORES** By F. W. Traphagen. Min. & Sci. Press, vol. 98, p. 522. 2 columns. Table.
- DRY CHLORINE PROCESS: The Chlorination of Complex Ores Containing Precious Metals, Together with Zinc, Lead and Iron.** By F. W. Traphagen. M. & M., vol. 29, p. 449. 4½ columns.
- CHLORINATION OF GOLD ORES; LABORATORY TESTS:** Discussion of the paper by A. L. Sweetser, Trans., vol. 38, p. 236. T. A. I. M. E., vol. 39, p. 793. 2½ pages.
- See also **COST OF METALLURGICAL TREATMENT.**
- Refining Gold and Silver**
- FLUXING OF GOLD SLIMES.** By C. E. Mayer. P. C. M. & M. Soc. S. A., vol. 5, p. 168, 4 columns; p. 211, 1½ columns; p. 341, ½ column; vol. 6, p. 17, 1 column.
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- THE CLEAN-UP, MELTING AND REFINING OF GOLD BULLION.** By G. W. Williams. Min. & Sci. Press, vol. 95, p. 277. 5 columns.
- REFINING OF SILVER BULLION CONTAINING ARSENIC AND ANTIMONY.** By B. Neilly. J. C. M. I., vol. 11, p. 586. 6 pages. I.
- BATTERY AND CYANIDE GOLD SMELTING.** By A. Thomas. P. C. M. & M. Soc. S. A., vol. 9, p. 6, 6 columns; p. 50, 2 columns; p. 120, 5 columns; p. 162, 5½ columns; p. 191, 4 columns.
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- Metallurgy of Iron and Steel**
- ABOUT SOME OF THE PROPERTIES OF STEEL.** By A. E. Hunt. P. E. Soc. W. Pa., vol. 2, p. 271, 8 columns; p. 251, 6 pages.
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- CRYSTALLIZATION OF IRON AND STEEL.** By A. M. Johnston. P. C. M. & M. Soc. S. A., vol. 10, p. 3. 15 columns.
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- THE CARBON-IRON DIAGRAM.** By H. M. Howe. T. A. I. M. E., vol. 39, p. 3. 68½ pages. I.
- A SIMPLE IDENTIFICATION TEST FOR IRON AND STEEL.** P. C. M. & M. Soc. S. A., vol. 10, p. 326. 3¼ columns.
- HEAT TREATMENT OF STEEL RAILS,** By W. Metcalf. P. E. Soc. W. Pa., vol. 24, p. 135. 19½ pages. I.
- MALLEABLE CAST IRON.** By B. Stoughton. Sch. Mines Quart., vol. 29, p. 54. 9 pages.
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- EXTRACTION OF IRON FROM ORE AND PULP.** By W. C. Brown. E. & M. J., vol. 90, p. 445. 1 column. I.
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- THE INFLUENCE OF THE CONDITIONS OF CASTING ON PIPING AND SEGREGATION, AS SHOWN BY MEANS OF WAX INGOTS.** By H. M. Howe and B. Stoughton. T. A. I. M. E., vol. 38, p. 109. 17 pages. I.
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- STEEL HARDENING METALS.** By J. H. Pratt. U. S. G. S., Mineral Resources, 1903; Mineral Resources, 1904, 58 pages.
- COPPER-CLAD STEEL.** By W. Tassin. E. & M. J., vol. 88, p. 813. 3½ columns.
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- THE USE OF FERRO-ALLOYS.** E. & M. J., vol. 85, p. 363. ½ column.

- SOME EXPERIMENTS ON SMELTING TITANIFEROUS IRON ORE. By G. H. Stanley. P. C. M. & M. Soc. S. A., vol. 10, p. 162, 19½ columns, I.; p. 345, 11½ columns, I.; p. 253, 2 columns.
- THE RELATION OF SLOW DRIVING TO FUEL-ECONOMY IN IRON BLAST FURNACE PRACTICE. By J. B. Miles. T. A. I. M. E., vol. 39, p. 540. 4½ pages.
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- THE UNIFORM NOMENCLATURE OF IRON AND STEEL: Discussion of the Report of Committee 24 of the International Association for Testing Material, presented at the Brussels Congress, 1906, and republished in Bi-monthly Bulletin, No. 20, March, 1908, pp. 227-237, but not included in this volume. T. A. I. M. E., vol. 39, p. 924. 6 pages.
- THE AIR-FURNACE PROCESS OF PREPARING WHITE CAST IRON FOR THE MALLEABILIZING PROCESS. By H. M. Howe and Enrique Gouceda. T. A. I. M. E. vol. 39, p. 765. 9½ pages. D.
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- THE IRON AND STEEL INDUSTRY OF THE PROVINCE OF ONTARIO, CANADA. By J. G. Barmelee. J. C. M. I., vol. 11, p. 125. 25 pages. I.
- EARLY IRON MAKING IN BRAZIL. By O. A. Derby. E. & M. J., vol. 88, p. 1112. 2 columns.
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- PREPARATION OF MATERIALS FOR THE BLAST FURNACE.** By D. Baker. E. & M. J., vol. 85, p. 609. 5½ columns.
- THE DISTRIBUTION OF IRON BLAST FURNACES IN THE UNITED STATES.** E. & M. J., vol. 90, p. 160. Table and Map.
- See also **THE IRON TRADE.**
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- TOOL STEEL DIRECT FROM THE ORE IN AN ELECTRIC FURNACE.** By A. Stansfield. J. C. M. I., vol. 13, p. 151. 11½ pages. I.
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- ELECTRICAL REDUCTION OF IRON. By J. W. Richards. Min. & Sci. Press, vol. 100, p. 549. 8 columns. I.
- ELECTRIC SMELTING OF IRON ORE IN SWEDEN. E. & M. J., vol. 88, p. 474. $1\frac{1}{2}$ columns.
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- THE GIROD ELECTRIC FURNACE AND THE FRENCH WORKS USING THE PAUL GIROD STEEL PROCESS. By W. Borchers. T. A. I. M. E., vol. 41, p. 120. $18\frac{1}{2}$ pages. I.
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- REMARKS ON THE PROCESS FOR SMELTING LEAD. By A. Trippel. Min. Mag., vol. 4, p. 36. 12 pages.
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- LEAD SLAGS. By M. W. Iles. U. S. G. S., Mineral Resources, 1883 and 1884, vol. 14.
- LEAD AND COPPER SLAGS. By J. A. Barr. Min. & Sci. Press, vol. 101, p. 602. $6\frac{1}{2}$ columns.
- THE ROBBINSON NON-SLAGGING TUYERE. E. & M. J., vol. 85, p. 251. 1 column. I.
- ALTERING THE CAPACITY OF A BLAST FURNACE. By T. Kapp. E. & M. J., vol. 90, p. 595. $\frac{3}{4}$ column.
- SYSTEM OF MIXING ORE PREPARATORY TO SMELTING. E. & M. J., vol. 89, p. 648, $\frac{3}{4}$ column. I.
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- See also ELECTRO-METALLURGY.
- THE BAO HOUSE AT SELBY, CALIFORNIA. By J. C. Bennett. E. & M. J., vol. 86, p. 451. $16\frac{1}{2}$ columns. I.
- THE BAG HOUSE AND ITS RECENT APPLICATIONS. By W. C. Ebaugh. E. & M. J., vol. 88, p. 1020. 6 columns. I.
- THE REFINING OF BASE BULLION AT PORT PIRIE AND TREATMENT OF BY-PRODUCTS. By B. B. Bayly. T. Au. I. M. E., vol. 12, p. 79. 26 pages. I.
- NOTE ON THE REFINING OF BASE BULLION. By W. Bowling. P. C. M. & M. Soc. S. A., vol. 5, p. 225, 6 columns; p. 263, $3\frac{1}{2}$ columns; p. 313, $1\frac{1}{2}$ columns; p. 341, 4 columns; vol. 6, p. 19, $\frac{1}{4}$ column; p. 49, 4 columns; p. 169, 3 columns.

- A FEW NOTES ON THE REFINING OF BASE BULLION.** By C. W. Lee and W. O. Brunton. P. C. M. & M. Soc. S. A., vol. 7, p. 358, 5 columns, 1.; vol. 8, p. 52, 1 column; p. 80, $\frac{1}{2}$ column; p. 121, $\frac{3}{4}$ column.
- THE REFINING OF BASE LEAD BULLION CONTAINING SILVER, AND HIGH IN GOLD.** By G. H. Blakemore. T. Au. I. M. E., vol. 5, p. 221. 38 pages.
- A FEW NOTES ON THE CUPELLING GOLD-LEAD BULLION.** By Geo. Melvill. P. C. M. & M. Soc. S. A., vol. 9, p. 157, $3\frac{1}{2}$ columns; p. 345, $\frac{3}{4}$ column.
- REMOVING ACCRETIONS IN CRUCIBLE OF LEAD FURNACES.** By J. N. Goddard. E. & M. J., vol. 86, p. 763. 3 columns. I.
- LEAD SMELTING IN QUEENSLAND, AUSTRALIA.** E. & M. J., vol. 87, p. 604. 2 columns.
- TRAIL SMELTER AND LEAD REFINERY.** By J. M. Turnbull. M. & M., vol. 31, p. 121. 10 columns. I.
- METALLURGICAL TREATMENT OF JAMESONITE ORES, BLACK HILLS, SOUTH DAKOTA.** By G. P. Ives and I. D. Ossa. E. & M. J., vol. 87, p. 891. 3 columns.
- SMELTING REFRACTORY LEAD ORES AT LAURIUM.** By L. Guillaume. E. & M. J., vol. 88, p. 446. $7\frac{1}{2}$ columns. I.
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- SMELTING THE LEAD ORE OF THE CEUR D'ALENE REGION.** Min. & Sci. Press, vol. 96, p. 627. 14 columns. I.
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- REDUCTION OF QUICKSILVER.** Min. & Sci. Press, vol. 95, p. 151. $\frac{3}{4}$ column.
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- SMELTING OF QUICKSILVER ORES OF HUANCANELICA, PERU.** Min. & Sci. Press, vol. 99, p. 563. 6 columns.
- GUADALOPE QUICKSILVER WORKS.** By C. De Kalb. Min. & Sci. Press, vol. 100, p. 446. 4 columns. I.
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- ROASTING AT KALGOORLIE. Min. & Sci. Press, vol. 101, p. 50. 4 columns. I.
- ROASTING THE JAMESONITE ORES, BLACK HILLS, SOUTH DAKOTA. E. & M. J., vol. 87, p. 891. $\frac{3}{4}$ column.
- THE ROASTING OF TELLURIDE ORES. By R. L. Mack and G. H. Scibbid. Min. & Sci. Press, vol. 95, p. 751. $6\frac{1}{2}$ columns; p. 777, 9 columns. I.
- SINTERING AT CERRO DE PASCO. Min. & Sci. Press, vol. 98, p. 195. $1\frac{1}{2}$ columns. I.
- See also METALLURGY OF GOLD AND SILVER, METALLURGY OF LEAD, METALLURGY OF COPPER, ETC.
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- DUST EXTRACTION FROM SMELTER SMOKE. Min. & Sci. Press, vol. 101, p. 108. 2 columns. I.

- SPRAGUE PROCESS FOR TREATING FURNACE GASES. By C. B. Sprague. E. & M. J., vol. 89, p. 519. 5 columns.
- CHICAGO'S SMOKE PROBLEM. By P. P. Bird. J. W. Soc. E., vol. 15, p. 279. 68 pages. I.
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- BIBLIOGRAPHY OF INJURIES TO VEGETATION BY FURNACE GASES. By P. Frazer. T. A. I. M. E., vol. 38, p. 520. 36 pages.
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- SMELTER SMOKE WITH A DISCUSSION OF METHODS OF LESSENING ITS INJURIOUS EFFECTS. By L. S. Austin. Min. & Sci. Press, vol. 95, p. 649. 6 columns. I.
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- A CONCRETE BLOCK CHIMNEY. Min. & Sci. Press, vol. 97, p. 468. 1 column. I.
- NEW 506-FOOT CHIMNEY AT GREAT FALLS SMELTER. By E. Higgins. E. & M. J., vol. 87, p. 156. 10 columns. I.
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- THE WORLD'S LARGEST CHIMNEY. By R. L. Herrick. M. & M., vol. 30, p. 257. 7 columns. I.
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- DEVICE FOR SHAKING BAGS IN SMELTER BAG HOUSE. E. & M. J., vol. 86, p. 1009. 2 columns.
- THE DEPOSITION OF FLUE DUST. By C. F. Shelby. E. & M. J., vol. 85, p. 204. 3 columns.

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- THE ASSAY OF TIN ORES. By J. Gray. P. C. M. & M. Soc. S. A., vol. 10, p. 312, $6\frac{1}{2}$ columns; p. 402, $2\frac{1}{4}$ columns.

SMELTING THE TIN ORES IN THE YUNNAN DISTRICT, CHINA. T. I. M. & M., vol. 19, p. 192. 2 pages. I.

THE METALLURGICAL TREATMENT OF COMPLEX TIN SULPHIDES. By P. J. Thibault. T. Au. I. M. E., vol. 8, pt. 2, p. 155. 8½ pages.

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RECENT ADVANCES IN THE ELECTRO-METALLURGY OF ZINC. By F. Peters. E. & M. J., vol. 89, p. 1017. 7½ columns. I.

ELECTRIC ZINC SMELTING. By F. T. Snyder. Min. & Sci. Press, vol. 95, p. 720. 1¼ columns.

ELECTRIC FURNACE FOR ZINC SMELTING. By F. A. J. FitzGerald. M. & M., vol. 31, p. 703. 2¼ columns. I.

TREATMENT OF COMPLEX ZINC SULPHIDE ORES AT OKER, GERMANY. By H. Pope. E. & M. J. vol. 89, p. 819. 6¼ columns.

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A METHOD FOR THE RECOVERY OF ZINC FROM SOLUTIONS OF SULPHATE. By W. Cullen. P. C. M. & M. Soc. S. A., vol. 10, p. 87, 6 columns; p. 209, 2 columns; p. 240, 2 columns.

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AN ADJUSTABLE PYROMETER STAND. By L. W. Bahney. T. A. I. M. E., vol. 40, p. 760. 4 pages. I.

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THE HAVARD COAL METER: An Apparatus for Measuring Coal on Way to Furnace. M. & M., vol. 30, p. 728. 1 column. I.

- BLAST FURNACE TUYERE.** By L. S. Austin. Min. & Sci. Press, vol. 98, p. 392. $\frac{2}{3}$ column. I.
- THE UTILIZATION OF WASTE HEAT CONTAINED IN SLAGS FROM SMELTING FURNACES.** By J. Howell and E. A. Ashcroft. T. Au. I. M. E., vol. 1, p. 66. $4\frac{1}{2}$ pages. I.
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- CUPOLA SMELTING IN ARIZONA.** By J. Douglas, Jr. U. S. G. S., Mineral Resources, 1883 and 1884, vol. 14.
- THE BESSEMERIZING OF HARDHEAD.** By D. M. Levy and D. Ewen. T. I. M. & M., vol. 18, p. 466. 16 pages. I.
- THE TREATMENT OF SULPHIDE ORES IN VICTORIA.** By S. Radcliff and J. Drevermann. T. Au. I. M. E., vol. 13, p. 132. 5 pages.
- TREATMENT OF COMPLEX SULPHIDES.** By D. Clark. Min. Mag., London, vol. 2, p. 56. 4 columns. I.
- METALLURGICAL SLEUTHING.** By E. B. Wilson. M. & M., vol. 31, p. 476. 3 columns.

METALS

Iron: Its Alloys, Etc.

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USES OF ALUMINUM. By J. T. W. Echwarri. Min. & Sci. Press, vol. 98, p. 424. $5\frac{1}{2}$ columns.

ALUMINIUM: Uses, Sources, Etc. By E. B. Wilson. M. & M., vol. 29, p. 371. $2\frac{1}{2}$ columns.

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MICROSTRUCTURE OF COPPER EXAMINED WITH A NEW ETCHING REAGENT. By R. R. Abbott. E. & M. J., vol. 87, p. 1040. 3 columns. I.

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Gold and Silver: Properties, Finess, Etc.

PROOF GOLD AND SILVER. By J. W. Pack. Min. & Sci. Press, vol. 96, p. 324. 1½ columns.

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THE ALLOYS OF GOLD AND TELLURIUM. By T. K. Rose. T. I. M. & M., vol. 17, p. 285. 8 pages.

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GREEN GOLD. By F. A. Leach. Min. & Sci. Press, vol. 96, p. 195. ¾ column.

NATURE OF GOLD IN ALLUVIALS. By F. L. Garrison. Min. & Sci. Press, vol. 98, p. 760. 4 columns.

COLLECTING PRECIOUS METAL DUST. E. & M. J., vol. 87, p. 863. 1½ columns. I.

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PRECIOUS METALS USED IN THE ARTS. E. & M. J., vol. 87, p. 499. 1 column.

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QUANTITATIVE DETERMINATION OF SILVER BY MEANS OF THE MICROSCOPE. By J. S. Curtis. U. S. G. S., 6th Ann. Rept., pp. 323-352. 1884-85. I.

ALLOYS OF GOLD AND TELLURIUM. E. & M. J., vol. 86, p. 567. 1½ columns.

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- THE GNOMONIC PROJECTION FROM A GRAPHICAL STANDPOINT. By A. F. Rogers. Sch. Mines Quart., vol. 29, p. 24. 9 pages. I.
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- THE MICROSTRUCTURE OF A COMPLEX ORE FROM THE FRISCO MINE, IDAHO. By Wm. Campbell. E. & M. J., vol. 87, p. 260. 3¼ columns. I.
- A NEW METALLOGRAPHIC MICROSCOPE. By W. Campbell. Sch. Mines Quart., vol. 31, p. 241. 5 pages. I.
- METALLOGRAPHY APPLIED TO ENGINEERING. By W. Campbell. J. C. M. I., vol. 11, p. 471. 14½ pages. I.
- See also METALS, and METALLURGY OF VARIOUS METALS.
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EXAMINING FOR FIREDAMP. By J. Ashworth. M. & M., vol. 30, p. 153. $5\frac{2}{3}$ columns.

APPARATUS FOR THE DETECTION OF FIREDAMP. E. & M. J., vol. 88, p. 566. $\frac{2}{3}$ column.

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SILVER: History and Occurrence. By T. F. Van Wagenen. Min. & Sci. Press, vol. 97, p. 392. 7 $\frac{1}{4}$ columns.

HISTORY OF MINING ON THE COMSTOCK. Min. & Sci. Press, vol. 97, p. 496, 3 columns; p. 570, 13 $\frac{3}{8}$ columns, I.

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HISTORY OF IRON HILL, LEADVILLE. E. & M. J., vol. 89, p. 261. 1 column.

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HISTORICAL RÉSUMÉ OF THE COPPER QUEEN MINE. E. & M. J., vol. 87, p. 409. 6 columns.

EARLY COPPER MINING IN THE PROVINCE OF QUEBEC. By J. Douglas. J. C. M. I., vol. 13, p. 254. 19 pages.

- THE COPPER AND IRON REGION OF LAKE SUPERIOR. *Min. Mag.*, vol. 1, p. 261. 7½ pages.
- HISTORY OF THE OLDEST COPPER MINE IN AMERICA. *M. & M.*, vol. 31, p. 235. 10½ columns. I.
- DISCOVERY OF IRON AND COPPER IN THE LAKE SUPERIOR REGION. *T. L. S. M. I.*, vol. 14, p. 22. 3 pages.
- HISTORICAL SKETCH OF COPPER MINING ON LAKE SUPERIOR. By A. Meads. *T. L. S. M. I.*, vol. 14, p. 202. 2 pages. I.
- HISTORY OF THE COPPER REGION OF LAKE SUPERIOR. *Min. Mag.*, vol. 10, p. 124. 18½ pages.
- See also OCCURRENCE OF COPPER AND COPPER ORES.
- THE STORY OF THE BINGHAM CANYON. By H. W. MacFarren. *Min. & Sci. Press*, vol. 99, p. 129. 3¾ columns. I.
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- ROUND MOUNTAIN MINES AND HISTORY, NEVADA. By J. P. Loftus. *Min. & Sci. Press*, vol. 99, p. 568. 1¼ columns. I.
- OLD METHODS IN MEXICO. *Min. & Sci. Press*, vol. 95, p. 372. 4 columns.
- HISTORY OF THE EL TIGRE MINE, MEXICO. *M. & M.*, vol. 29, p. 483. 3 columns.
- COAL MINING BY THE MONKS IN ENGLAND. By J. B. Simpson. *T. I. M. E.*, vol. 39, p. 573. 28 pages.
- REMINISCENCE OF MINING IN CORNWALL. By J. Vivian. *Min. & Sci. Press*, vol. 100, p. 743. 4¾ columns.
- HISTORY OF THE BARBERTON GOLDFIELD. *P. C. M. & M. Soc. S. A.*, vol. 10, p. 122. 10 columns. I.
- See also AFRICA.
- HISTORY AND REVIEW OF THE NITER INDUSTRY OF CHILE. By M. R. Lamb. *E. & M. J.*, vol. 90, p. 18. 14¾ columns. I.
- HISTORY OF THE COAL FIELDS OF CHILE. *T. I. M. E.*, vol. 38, p. 31. 3 pages.
- See also CHILE.
- GOLD MINES OF TIBET. By A. Del Mar. *Min. & Sci. Press*, vol. 100, p. 254. 3¾ columns.
- THE LED MULE LODE. *E. & M. J.*, vol. 89, p. 1146. 1 column.
- WASHED HIS HOME FOR GOLD: A Curious Incident as to Discovery of Gold. *M. & M.*, vol. 31, p. 677. Note.
- See also GENERAL MINING.

Inspection of Mines

- DUTIES OF A MINE FOREMAN IN THE BITUMINOUS FIELDS OF PENNSYLVANIA. *M. & M.*, vol. 29, p. 94. ½ column.
- MINE INSPECTION. By C. De Kalb. *Min. & Sci. Press*, vol. 99, p. 497. 4 columns.
- INSPECTION OF MINES. By J. A. Holmes. *Min. & Sci. Press*, vol. 99, p. 499. 1¾ columns.
- ANTHRACITE MINE INSPECTION. By L. M. Evans. *Coal Mining Supplement*, *E. & M. J.*, vol. 88, p. 20. 4¼ columns.
- MINE INSPECTION IN UTAH MINES. By A. C. Watts. *M. & M.*, vol. 30, p. 324. 4½ columns.
- MINE INSPECTION IN GREAT BRITAIN. *M. & M.*, vol. 30, p. 316. 2½ columns.
- THE LEGAL DUTIES OF THE FIRE BOSS IN THE BITUMINOUS MINES OF PENNSYLVANIA. *M. & M.*, vol. 29, p. 142. ¼ column.
- INSPECTION OF COAL PROPERTIES BY SUPERINTENDENTS, ENGINEERS, ETC. *M. & M.*, vol. 29, p. 119. 2½ columns. I.
- MINE INSPECTION WITH RESPECT TO CAR ALLOTMENT. By H. B. Douglas. *E. & M. J.*, vol. 88, p. 24. 6½ columns.
- See also MINE REGULATION.

Prospecting: Methods of Procedure, Equipping Camping Outfits, Etc.

- PROSPECTING FOR PHOSPHATE ROCK. By F. F. Wilson, Jr. E. & M. J., vol. 86, p. 1148. 1 column.
- THE PROSPECTOR AND HIS FRIENDS. Min. & Sci. Press, vol. 95, p. 680. 2 columns. I.
- THE AMERICAN PROSPECTOR IN MEXICO AND HIS PROBLEMS. By T. Chase. E. & M. J., vol. 87, p. 694. 2 columns.
- SINKING TEST PITS. E. & M. J., vol. 88, p. 328. $\frac{2}{3}$ column.
- THE VALUE OF SURFACE TRENCHING. M. & M., vol. 31, p. 686. 1 column.
- PROSPECTING, DEVELOPING AND MINING. By R. W. Brock. Min. & Sci. Press, vol. 100, p. 860. $2\frac{1}{2}$ columns.
- HUNTING METALS FOR THEIR HIDES. By H. W. Hixon. E. & M. J., vol. 88, p. 168. $5\frac{1}{2}$ columns.
- CHANCES FOR THE PROSPECTOR. By H. H. Edgerton. Min. & Sci. Press, vol. 98, p. 479. $2\frac{2}{3}$ columns.
- PROSPECTING FOR GOLD. M. & M., vol. 30, p. 277. $1\frac{1}{2}$ columns.
- PROSPECTING IN CHIHUAHUA, MEXICO. By R. H. Burrows. Min. & Sci. Press, vol. 100, p. 392. 4 columns. I.
- A SCIENTIFIC SEARCH FOR A NEW GOLDFIELD. By R. T. Hill. E. & M. J., vol. 86, p. 1157. 9 columns. I.
- PROSPECTING FOR ORES OF THE GOLDFIELD TYPE. By J. V. Lewis. E. & M. J., vol. 87, p. 1121. $2\frac{1}{2}$ columns.
- PROSPECTORS AND PROSPECTING IN NEVADA. By R. T. Hill. E. & M. J., vol. 86, p. 1053. $3\frac{1}{2}$ columns.
- PROSPECTING IN THE BARBERTON GOLDFIELD. P. C. M. & M. Soc. S. A., vol. 10, p. 127. $2\frac{1}{2}$ columns.
- PROSPECTING IN NICARAGUA. T. A. I. M. E., vol. 41, p. 612. $1\frac{1}{2}$ pages.
- PROSPECTING FOR SILVER. M. & M., vol. 31, p. 289. 2 columns.
- PROSPECTING ONTARIO SILVER PROPERTIES. E. & M. J., vol. 89, p. 1153. $\frac{1}{2}$ column.
- PROSPECTING POVERTY GULCH CLAIMS. M. & M., vol. 31, p. 694. 7 columns. I.
- TESTING PLACER GROUND. E. & M. J., vol. 87, p. 223. $2\frac{1}{2}$ columns.
- PROSPECTING AND MINING GOLD PLACERS IN ALASKA. By J. P. Hutchins. U. S. G. S., Bull. 345, p. 54. 24 pages. 1907.
- DISCOVERY OF PLACER GOLD. E. & M. J., vol. 88, p. 103. 2 columns.
- TESTING PLACERS IN KOREA. By R. Y. Hanlon. Min. & Sci. Press, vol. 101, p. 475. 2 columns. I.
- See also AURIFEROUS GRAVELS and HYDRAULIC MINING.
- PROSPECTING FOR COAL. By B. Halberstadt. M. & M., vol. 30, p. 454. $4\frac{1}{2}$ columns. I.
- PROSPECTING ANTHRACITE MINES BY DRILL HOLES. By F. Lynde. E. & M. J., vol. 88, p. 258. 9 columns. I.
- SYSTEMATIC EXPLORATION IN THE PITTSBURG COAL-SEAM. By F. Z. Schellenberg. T. A. I. M. E., vol. 41, p. 225. 12 pages. I.
- PROSPECTING DISSEMINATED COPPER ORE DEPOSITS. By C. R. Keyes. E. & M. J., vol. 90, p. 1055. $4\frac{1}{2}$ columns.
- PROSPECTING IN THE MESABI IRON RANGE. M. & M., vol. 29, p. 293. 2 columns.
- PROSPECTING FOR TIN ON CAPE PRINCE OF WALES. Min. & Sci. Press, vol. 95, p. 746. $\frac{1}{2}$ column.
- PROSPECTING FOR TIN IN SIAM. By G. B. Adeney. Min. Mag., London, vol. 3, p. 287. 2 columns. I.
- PROSPECTING AND TESTING OF CLAY DEPOSITS. By E. K. Soper. Min. & Sci. Press, vol. 100, p. 827. $7\frac{1}{2}$ columns.
- See also OCCURRENCE OF WORKABLE CLAYS.

PROSPECTING IN SIBERIA. Min. & Sci. Press, vol. 20, p. 354. 1 column.

PROSPECTING IN THE NORTH. By H. V. Winchell. Min. Mag., London, vol. 3, p. 436. $4\frac{1}{2}$ columns.

PROSPECTING IN CHINA. By G. F. Ober. Min. Mag. London, vol. 4, p. 223. $1\frac{1}{2}$ columns.

See also CHINA.

See also PROSPECT DRILLING, and first volume of INDEX, also COST OF PROSPECTING.

Divining

USE OF THE DIVINING ROD. Min. & Sci. Press, vol. 95, p. 500. $\frac{3}{4}$ column.

THE DIVINING ROD. Min. & Sci. Press, vol. 101, p. 711. $\frac{1}{4}$ column.

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See also first volume of INDEX.

Value of Mines: Sampling and Estimation of Mines; Ore Reserves, Ore in Sight, Mine Reports, Etc.

THE PROFESSIONAL EXAMINATION OF UNDEVELOPED MINERAL PROPERTIES. By C. Catlett. T. A. I. M. E., vol. 39, p. 774. $8\frac{1}{2}$ pages.

TO DETERMINE THE VALUE OF A MINE. Min. Mag., vol. 1, p. 607. 6 pages.

PRESENT VALUE OF MINES. P. C. M. & M. Soc. S. A., vol. 5, p. 185. $\frac{1}{2}$ column.

RATING OF MINES: Principles Involved. E. & M. J., vol. 88, p. 24. 5 columns.

CALCULATION OF MINE-VALUES. By R. B. Brinsmade. T. A. I. M. E., vol. 39, p. 243. 7 pages.

THE VALUATION OF MINING AREAS ON THE RAND. By W. F. Wilkinson. T. I. M. & M., vol. 18, p. 348. 6 pages.

GRAPHIC METHODS FOR MINE VALUATION. By H. C. Jenkins. Min. Mag., London, vol. 2, p. 287. 6 columns. I.

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ORE-VALUATION OF GOLD MINES. T. A. I. M. E., vol. 39, p. 685. 9 pages. I.

See also VALUE OF ORE AND ITS DETERMINATION.

ESTIMATE OF TONNAGE OF ORE AND STRIPPING. M. & M., vol. 29, p. 344. 11 columns.

COMPUTING TONNAGE FROM VOLUME OF ORE REMOVED. By S. L. Lefevre and G. C. Stoltz. E. & M. J., vol. 87, p. 350. $1\frac{1}{4}$ columns. I.

THE VALUATION OF PUBLIC LANDS: The Value of Coal Land. By G. H. Ashley. U. S. G. S., Bull. 424. 75 pages. 1910.

DEPTH AND MINIMUM THICKNESS OF BEDS (COAL) AS LIMITING FACTORS IN VALUATION. By C. A. Fisher. U. S. G. S., Bull. 424. 75 pages. 1910.

VALUE OF COAL LAND. M. & M., vol. 29, p. 366. $\frac{1}{4}$ column.

PLACER EXAMINATIONS. By A. Lakes. M. & M., vol. 29, p. 540. $7\frac{1}{2}$ columns. I.

CALCULATING VALUE IN PLACER GROUND. By O. H. Packer. Min. & Sci. Press, vol. 101, p. 810. $3\frac{1}{2}$ columns. D.

See also AURIFEROUS GRAVELS and HYDRAULIC MINING.

EXAMINATION OF PETROLEUM PROPERTIES. By C. Janin. Min. & Sci. Press, vol. 101, p. 269. $3\frac{1}{2}$ columns.

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ORE RESERVES IN MINING. Min. & Sci. Press, vol. 101, p. 410. 2 columns.

ORE RESERVES OF WEST AUSTRALIA GOLD MINES. E. & M. J., vol. 90, p. 458. $5\frac{1}{2}$ columns.

ESTIMATES OF ORE RESERVES. T. A. I. M. E., vol. 40, p. 125. 9 pages. I.

THE AUDITING OF ORE RESERVES. By B. I. Collings. P. C. M. & M. Soc. S. A., vol. 5, p. 144, 2 columns; p. 206, $11\frac{1}{2}$ columns; p. 232, 7 columns; p. 309, $1\frac{1}{2}$ columns.

NOTES ON THE ESTIMATION AND VALUATION OF ORE RESERVES. By W. R. Tait. P. C. M. & M. Soc. S. A., vol. 7, p. 198, 10 columns; p. 295, $1\frac{1}{4}$ columns; p. 332, 2 columns; p. 406, 2 columns.

See also BUYING AND SELLING ORE and VALUE OF ORE AND ITS DETERMINATION.

See also DREDGING FOR GOLD AND OTHER MATERIALS.

VALUATION OF MINNESOTA MINERAL LANDS. E. & M. J., vol. 84, p. 558. 1 column.

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Permanence in Depth

PERMANENCY IN DEPTH. Min. & Sci. Press, vol. 96, p. 13. 1 column.

RATIO OF VALUE TO DEPTH. Min. & Sci. Press, vol. 101, p. 495. $\frac{2}{3}$ column.

PERSISTENCE IN DEPTH OF TREADWELL ORES. U. S. G. S., Bull. 259, p. 79. $\frac{1}{4}$ page.

THE FACTORS THAT CONTROL THE DEPTH OF ORE DEPOSITS. By J. W. Gregory. T. Au. I. M. E., vol. 8, pt. 2, p. 127. 28 pages.

LIVES OF MINES. Min. & Sci. Press, vol. 97, p. 456. $2\frac{1}{2}$ columns.

LIFE OF RAND MINES. E. & M. J., vol. 90, p. 543. 1 column.

DECREASE OF VALUE IN ORE-SHOOTS WITH DEPTH. By F. L. Garrison. Min. & Sci. Press, vol. 101, p. 511. $2\frac{1}{4}$ columns.

DECREASE IN VALUE OF ORE WITH DEPTH, AT KALGOORLIE, WEST AUSTRALIA. E. & M. J., vol. 85, p. 196. Table.

PROBABLE DEPTH TO WHICH MINING CAN BE CARRIED. P. C. M. & M. Soc. S. A., vol. 8, p. 47. 2 columns.

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PERSISTENCY OF THE ORE IN THE NORTH CAROLINIAN GOLD BELT. E. & M. J., vol. 87, p. 296. 2 columns.

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Development: Size, Shape, Depth and Arrangement of Shafts and Slopes

THE NECESSITY OF DISTINGUISHING BETWEEN PROSPECTING, DEVELOPING AND MINING. By R. W. Brock. J. C. M. I., vol. 13, p. 490. 5 pages.

PRELIMINARY DEVELOPMENT WORK. By A. M. Bateman. J. C. M. I., vol. 13, p. 621. $10\frac{1}{2}$ pages. I.

THE MISPLACEMENT OF MINING SHAFTS AND ADITS IN VICTORIA. By S. Hunter. T. Au. I. M. E., vol. 10, p. 326. 14 pages. I.

DEVELOPMENT WORK IN MINING. P. C. M. & M. Soc. S. A., vol. 10, p. 332. $\frac{3}{4}$ column.

DEVELOPMENT OF MINES FOR DIFFERENT PITCH. M. & M., vol. 30, p. 588. $3\frac{1}{2}$ columns. I.

- DEVELOPMENT OF A SLOPE MINE. M. & M., vol. 30, p. 340. Map.
- SIZE AND DEPTH OF SOME SHAFTS IN AMERICA. M. & M., vol. 29, p. 392. $\frac{1}{4}$ column.
- CIRCULAR VS. RECTANGULAR SHAFT SINKING. By H. M. Payne. E. & M. J., vol. 89, p. 231. 5 columns. I.
- ELLIPTICAL VS. RECTANGULAR SHAFTS. By W. A. Weldin. M. & M., vol. 31, p. 167. 5 columns. I.
- See also SHAFT SINKING.
- THE INTERVAL BETWEEN LEVELS. E. & M. J., vol. 85, p. 454. $\frac{3}{4}$ column.
- THE SYSTEMATIC DEVELOPMENT OF A COAL MINE. By W. Leckie. E. & M. J., vol. 85, p. 863. 11 columns. I.
- SYSTEMATIC DEVELOPMENT IN PITTSBURGH SEAM. By F. Z. Schellenberg. E. & M. J., vol. 90, p. 521. 11 columns. I.
- ECONOMICAL DEVELOPMENT OF COAL MINES. By H. J. Nelms. E. & M. J., vol. 87, p. 800. $1\frac{1}{2}$ columns.
- PLAN OF DEVELOPMENT AT BOISSEVAIN, WEST VIRGINIA. E. & M. J., vol. 85, p. 866. 1 column. I.
- METHOD OF DEVELOPING THE MINE "C," WYOMING. E. & M. J., vol. 90, p. 226. Plan.
- METHODS OF DEVELOPMENT IN THE COAL FIELDS OF SOUTHERN COLORADO. M. & M., vol. 30, p. 588. $3\frac{1}{2}$ columns. I.
- DEVELOPMENT OF THE HOSMER COAL MINES. J. C. M. I., vol. 13, p. 242. 1 page. I.
- See also METHODS OF MINING COAL.
- METHOD OF DEVELOPMENT IN THE ITALY LIGNITE MINES. E. & M. J., vol. 89, p. 1176. $1\frac{1}{2}$ columns.
- DEVELOPMENT IN THE PITCHING COAL SEAMS OF HAZLETON DISTRICT. Coal Mining Supplement, E. & M. J., vol. 88, p. 25. $\frac{2}{3}$ column. I.
- MINE DEVELOPMENT AT CANANEA, MEXICO. M. & M., vol. 30, p. 28. 2 columns.
- DEVELOPMENT OF THE MIAMI COPPER MINES. M. & M., vol. 30, p. 82. $\frac{1}{2}$ column. I.
- MINE DEVELOPMENT AT RAY, NEVADA. M. & M., vol. 29, p. 545. 1 column.
- DEVELOPMENT OF THE HELEN IRON MINE. J. C. M. I., vol. 13, p. 123. 4 pages. I.
- MINING; DEVELOPMENT OF THE IRON ORE MINES OF THE BIRMINGHAM DISTRICT, ALABAMA. T. A. I. M. E., vol. 40, p. 113. 2 pages. I.
- DEVELOPING A NEW ORE HORIZON IN THE JOPLIN DISTRICT. By L. L. Wittich. M. & M., vol. 30, p. 637. $5\frac{1}{4}$ columns. I.
- DEVELOPMENT: Sampling and Ore Valuation of Gold Mines. By C. B. Horwood and Mungo Park. T. A. I. M. E., vol. 39, p. 685. 9 pages. I.
- See also MINE SAMPLING and VALUE OF MINES.
- DEVELOPMENT AT THE COMBINATION MINE. Min. & Sci. Press, vol. 95, p. 435. 6 columns. I.
- THE GIROUX SHAFT AT KIMBERLY, NEVADA. By C. E. Arnold. T. A. I. M. E., vol. 41, p. 536. $5\frac{1}{2}$ pages. I.
- DEVELOPMENT AT THE CRESSON MINE, CRIPPLE CREEK, COLORADO. M. & M., vol. 31, p. 737. 2 columns.
- DEVELOPING POVERTY GULCH CLAIMS. By C. W. Henderson. M. & M., vol. 31, p. 727. $8\frac{1}{2}$ columns. I.
- METHOD OF DEVELOPMENT IN THE TREADWELL MINES. Min. & Sci. Press, vol. 97, p. 85. 4 columns. I.
- METHODS OF DEVELOPMENT ON THE RAND. T. A. I. M. E., vol. 5, p. 46. $3\frac{1}{4}$ pages.
- THE DEEP SHAFTS OF THE RAND. T. A. I. M. E., vol. 5, p. 44. $2\frac{1}{4}$ pages.
- See also DEEP MINING.
- DEVELOPMENT IN THE RAND MINES. P. C. M. & M. Soc. S. A., vol. 9, p. 86, 1 column, I.; p. 89, 9 columns, I.

- METHOD OF DEVELOPING THE PILGRIM'S REST PROPERTY. P. C. M. & M. Soc. S. A., vol. 9, p. 296. $\frac{1}{2}$ column. I.
- DEVELOPMENT OF THE ST. JOHN DEL REY MINES IN BRAZIL. Min. Mag., London, vol. 3, p. 465. 1 column. I.
- DEVELOPMENT OF THE EUGENE MINE, KOOTENAY, BRITISH COLUMBIA. E. & M. J., vol. 89, p. 420. 1 column. I.
- THE DEVELOPMENT OF AN ORE SHOOT IN NOVA SCOTIA. By E. P. Brown. J. M. Soc. N. S., vol. 12, p. 57. $4\frac{1}{2}$ pages. I.
- DEVELOPMENT AT THE GRANBY MINES. J. C. M. I., vol. 11, p. 394. $6\frac{1}{2}$ pages. I.
- SHAFTS AT THE MOUNT MORGAN MINE. E. & M. J., vol. 87, p. 751. $1\frac{1}{4}$ columns.
- DEVELOPMENT IN THE MEXICAN MINE, COMSTOCK LODE. Min. & Sci. Press, vol. 100, p. 420. 2 columns. I.
- RECENT WORK ON THE COMSTOCK. By W. D. O'Brien. Min. & Sci. Press, vol. 96, p. 804. $4\frac{1}{2}$ columns. I.
- METHOD OF DEVELOPMENT EMPLOYED AT THE LOS PILARES MINE, MEXICO. M. & M., vol. 31, p. 107. 1 column. I.
- DEVELOPMENT AT THE ESPERANZA MINE, EL ORO, MEXICO. By W. E. Hindry. Min. & Sci. Press, vol. 99, p. 822. 7 columns. I.
- METHOD OF DEVELOPMENT AT THE ESPERANZA MINE, MEXICO. Min. & Sci. Press, vol. 99, p. 846. 1 column.
- A MINING PUZZLE: Exploration at Broken Hill, NEW SOUTH WALES. By N. Dudley. T. I. M. E., vol. 2, p. 111. 3 pages.
- See also MINE MAPS, and METHODS OF MINING, GENERAL AND MISCELLANEOUS.
- See also COST OF DEVELOPMENT.
- Shaft Sinking: Processes, Applications, Rate of Sinking, Raises, Winzes, Etc.**
- MODERN SHAFT SINKING. By F. Donaldson. M. & M., vol. 29, p. 392, $3\frac{1}{4}$ columns; p. 459, 10 columns, I.; p. 515, $7\frac{1}{2}$ columns, I.; p. 563, $6\frac{1}{2}$ columns, I.; vol. 30, p. 124, $9\frac{1}{4}$ columns, I.; p. 218, $5\frac{1}{2}$ columns, I.; p. 332, $5\frac{1}{2}$ columns, I.; p. 404, $5\frac{3}{4}$ columns, I.; p. 632, $5\frac{1}{4}$ columns, I.
- SHAFT SINKING. By C. K. Colvin. Min. & Sci. Press, vol. 85, p. 191. 2 columns.
- IMPROVED SHAFT SINKING METHODS AT DUCKTOWN. By W. Y. Westervelt. E. & M. J., vol. 89, p. 275. $3\frac{1}{2}$ columns. I.
- NOTES ON VERTICAL SHAFT SINKING ON THE WITWATERSRAND. By H. F. Roche. P. C. M. & M. Soc. S. A., vol. 5, p. 200, 8 columns, I.; p. 259, $7\frac{1}{2}$ columns; p. 312, $3\frac{1}{4}$ columns; vol. 6, p. 17, 3 columns.
- SINKING THE WOODWARD No. 3 SHAFT. By R. V. Norris. E. & M. J., vol. 89, p. 1182. $12\frac{1}{2}$ columns. I.
- THE GIROUX SHAFT AT KIMBERLY, NEVADA. By C. E. Arnold. E. & M. J., vol. 89, p. 1325. 5 columns. I.
- SHAFT SINKING AT THE GIROUX, ELY, NEVADA. Min. & Sci. Press, vol. 100, p. 826. $1\frac{3}{4}$ columns.
- THE SINKING AND EQUIPMENT OF THE LITTLETON COLLIERIES. By T. H. Bailey. T. I. M. E., vol. 39, p. 418. 38 pages. I.
- SINKING INTO THE LOWER COAL-MEASURE AT HULTON COLLIERY. By A. J. Tonge. T. I. M. E., vol. 39, p. 350. $12\frac{1}{2}$ pages. I.
- THE SINKING OF THE ASTTEY GREEN SHAFTS, AT ASTTEY, NEAR MANCHESTER, BY MEANS OF THE DROP-SHAFT METHOD AND UNDERHANGING TUBBING. By C. Pilkington and P. L. Wood. T. I. M. E., vol. 39, p. 529. 25 pages. I.

- SHAFT SINKING AT STELLA MINE, NEW YORK. E. & M. J., vol. 88, p. 617. 2 columns. I.
- SINKING THE JOHN SHAFT AT HAMSTERLEY COLLIERY, THROUGH SAND AND GRAVEL, BY MEANS OF UNDERGROUND TUBBING. By J. Cummins. T. I. M. E., vol. 38, p. 320. 13 pages. I.
- SINKING THE CLONAN SHAFT AT MINEVILLE, NEW YORK. By G. C. Stoltz. E. & M. J., vol. 85, p. 111. 4 columns. I.
- SINKING A FIVE-COMPARTMENT SHAFT ON THE RAND. By E. M. Weston. E. & M. J., vol. 85, p. 391. 15 columns. I.
- SINKING OPERATIONS AT WELLESLEY NEW FITTING, WEMYSS COLLIERIES. By G. D. Budge and P. Dunsire. T. I. M. E., vol. 36, p. 318. 6½ pages. I.
- SINKING AND TIMBERING OF THE ALLAN SHAFTS, NEAR STELLARTON, NOVA SCOTIA. By H. E. Coll. J. M. Soc. N. S., vol. 12, p. 12. 12 pages. I.
- SHAFT SINKING AT QUINCY MINE, MICHIGAN. J. C. M. I., vol. 10, p. 401. 1 page. I.
- SINKING THROUGH BAD GROUND. By F. W. Adgate. Min. & Sci. Press, vol. 95, p. 183. 4½ columns. I.
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- SHAFT SINKING BY CEMENTATION. By L. Morin. E. & M. J., vol. 86, p. 221. 6 columns. I.
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- PUDDLING A WET SHAFT. By H. Boursin. Min. & Sci. Press, vol. 96, p. 127. 2½ columns. I.
- SINKING A SHAFT WITH DROP-SHAFT AND AIR-LOCK. Sch. Mines Quart., vol. 31, p. 219. 5 pages. I.
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- SHAFT SINKING BY CAISSONS OR DROP-SHAFTS. M. & M., vol. 29, p. 517. 3½ columns. I.
- SPECIAL METHODS OF SHAFT SINKING. P. C. M. & M. Soc. S. A., vol. 8, p. 64. 2½ columns.
- DRIVING A LONG VERTICAL RAISE. By C. T. Kriebel. M. & M., vol. 30, p. 282. 2 columns. I.
- SINKING A WINZE WITH LONG HOLES. By G. C. McFarlane. E. & M. J., vol. 86, p. 713. 1½ columns. I.
- LONG-HOLE SYSTEM OF SHAFT SINKING. E. & M. J., vol. 85, p. 659. ½ column.
- See also USE OF BORE HOLES, DIAMOND AND ROTARY DRILLS, and CHURN DRILLS.
- THE USE OF THE CHANNELING MACHINE IN MINING OPERATIONS: A Proposed Method. Min. & Sci. Press, vol. 101, p. 707. 5 columns. I.
- DRIVING VERTICAL RAISES WITH STOPPING DRILLS. By A. O. Christensen. E. & M. J., vol. 88, p. 937. 2½ columns. I.
- DRIVING INCLINED RAISES WITH STOPPING DRILLS. By A. O. Christensen. E. & M. J., vol. 88, p. 618. 2 columns. I.

DRIVING A SLOPE IN NEWFOUNDLAND. M. & M., vol. 31, p. 569. 7 columns. I.

BORING LARGE SHAFTS. Min. & Sci. Press, vol. 20, p. 257, 2 columns, I.; p. 272, $1\frac{1}{4}$ columns, I.

THE KIND-CHAUDRON BORING PROCESS FOR SHAFT SINKING. M. & M., vol. 30, p. 332. $5\frac{1}{2}$ columns. I.

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EXTENSION OF A COLLIERY WORKING SHAFT. By M. S. Hachita. E. & M. J., vol. 90, p. 1168. $6\frac{1}{2}$ columns. I.

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See also DEVELOPMENT: Size, Shape, etc., of Shafts.

NOTE ON A PROBLEM DURING SHAFT SINKING. By C. B. Saner. P. C. M. & M. Soc. S. A., vol. 9, p. 70, 8 columns, I.; p. 303, $4\frac{1}{2}$ columns, I.

RATE OF SHAFT SINKING ON THE RAND. T. Au. I. M. E., vol. 5, p. 49. 6 pages.

RAPID SHAFT SINKING IN BUTTE. By C. J. Stone. E. & M. J., vol. 90, p. 107. 2 columns.

RECORD OF SHAFT SINKING AT NO. 1 SKY LINE MINE. Min. & Sci. Press, vol. 88, p. 40. Table.

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VERTICAL CURVES IN SHAFTS. By S. Smillie. E. & M. J., vol. 90, p. 1000. 5 columns. I.

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See also USE OF CONCRETE IN MINES.

See also DRAINAGE IN GENERAL and PUMPS FOR MINE USE.

See also ROPES, CHAINS, COUPLINGS, etc., and DEVELOPMENT.

Methods of Mining Coal, Lignite, Etc.

THE MINING OF COAL: Pits and Galleries in General. Min. Mag., vol. 8, p. 163, 2 pages; vol. 7, p. 73, 4 pages; p. 258, $7\frac{1}{2}$ pages; p. 463, $7\frac{1}{2}$ pages.

THE VARIOUS MODES IN WHICH COAL IS WORKED IN ENGLAND, AND AN EXAMINATION OF THE PRACTICE IN DIFFERENT DISTRICTS. By J. K. Blackwell. Min. Mag., vol. 1, p. 559, 12 pages; p. 3, 10 pages.

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- SOME REMARKS ON COAL MINING. By J. Marlor. *Min. Mag.*, vol. 5, p. 415, 4 pages; p. 458, 10½ pages; vol. 6, p. 27, 13½ pages; p. 107, 10 pages; p. 213, 12½ pages; p. 323, 10 pages.
- COAL MINING IN ALABAMA. By H. M. Payne. *E. & M. J.*, vol. 89, p. 1163. 1½ columnus.
- COAL AND COAL MINING IN NEW SOUTH WALES. By T. Partou. *T. Au. I. M. E.*, vol. 10, p. 233. 27½ pages.
- MINING METHODS AT SEATON-DELAVAL COLLIERY, ENGLAND. By L. W. Mayer. *E. & M. J.*, vol. 86, p. 765. 13 columnus. I.
- COAL MINING IN NORTHUMBERLAND, ENGLAND. By G. R. Dixon. *E. & M. J.*, vol. 85, p. 212. 8 columnus. I.
- METHODS OF WORKING IN THE NORTHUMBERLAND COAL MINES. *E. & M. J.*, vol. 85, p. 212. 3 columnus.
- COAL MINING BY THE BORD-AND-PILLAR SYSTEM, NORTHUMBERLAND, ENGLAND. By G. R. Dixon. *E. & M. J.*, vol. 85, p. 411. 12½ columnus. I.
- See also ROOM AND PILLAR MINING.
- SPECIAL METHOD FOR MINING COAL IN ENGLAND. By G. R. Dixon. *E. & M. J.*, vol. 85, p. 1203. 7 columnus. I.
- SOUTH STAFFORDSHIRE METHOD OF MINING COAL. By L. W. Mayer. *E. & M. J.*, vol. 86, p. 673. 10 columnus. I.
- OPERATION OF CARMAUX COAL MINES IN FRANCE. By L. W. Mayer. *E. & M. J.*, vol. 86, p. 574. 16 columnus. I.
- ADVANCED METHODS OF MINING COAL IN SILESIA. By L. W. Mayer. *E. & M. J.*, vol. 86, p. 887. 17 columnus. I.
- THE TWO-ENTRY METHOD OF MINING IN SOUTHERN INDIANA. *E. & M. J.*, vol. 90, p. 870. 4 columnus. I.
- See also DEVELOPMENT, ETC.
- COAL MINING METHODS IN RANDOLPH COUNTY, MISSOURI. By J. J. Rutledge. *E. & M. J.*, vol. 86, p. 6. 6½ columnus. I.
- METHODS OF MINING COAL IN NEW ZEALAND. By S. Fry. *E. & M. J.*, vol. 87, p. 753. 9½ columnus. I.
- MINING METHODS IN THE PITTSBURG SEAM. *E. & M. J.*, vol. 90, p. 521. 10 columnus. I.
- SUGGESTED MINING METHOD FOR PITTSBURG SEAM. By R. Y. Williams. *E. & M. J.*, vol. 86, p. 330. 7½ columnus. I.
- POCAHONTAS REGION MINING METHODS. By H. H. Stoek. *M. & M.*, vol. 29, p. 394. 13 columnus. I.
- METHODS OF MINING IN THE POCAHONTAS REGION. *M. & M.*, vol. 29, p. 398. 4 columnus. I.
- COAL MINING METHODS IN SIBERIA. *E. & M. J.*, vol. 89, p. 625. 3½ columnus.
- COAL MINING AT DANTE, VIRGINIA. By R. W. Stone. *U. S. G. S.*, Bull. 316, p. 68. 8 pages. I. 1906.
- METHOD OF MINING COAL IN WASHINGTON. *M. & M.*, vol. 30, p. 17. ½ column. I.
- METHODS OF MINING COAL IN WEST VIRGINIA. *M. & M.*, vol. 29, p. 509. 11½ columnus. I.
- COAL MINING AT MORGANTOWN, WEST VIRGINIA. By R. B. Brimsmade. *E. & M. J.*, vol. 89, p. 1236. 5 columnus.
- COAL MINING METHODS AT GARY, WEST VIRGINIA. By J. S. Walker. *E. & M. J.*, vol. 88, p. 6. 10½ columnus. I.
- SYSTEMS OF MINING IN THE DIAMONDVILLE COAL FIELD, WYOMING. *E. & M. J.*, vol. 85, p. 116. 1½ columnus.
- METHOD OF WORKING THE GEORGE'S CREEK "BIG VEIN": Old and New. *E. & M. J.*, vol. 87, p. 307. 6 columnus. I.
- PLANS FOR MINING A FLAT COAL SEAM. By A. H. Stow. *E. & M. J.*, vol. 85, p. 504. 9½ columnus. I.

- MINING IN FLAT COAL SEAMS UNDER HEAVY COVER. By A. H. Stow. E. & M. J., vol. 86, p. 135. 11½ columns. I.
- METHOD OF MINING TWO SEAMS OF COAL WITH AN INTERVENING PARTING OF SHALE 6 TO 10 FEET THICK. M. & M., vol. 29, p. 46. 1 column. I.
- GETTING TOP (ROOSTER) COAL. E. & M. J., vol. 86, p. 15. ¾ column.
- THE BLOCK SYSTEM OF COAL MINING IN ENGLAND. E. & M. J., vol. 85, p. 1203. 2½ columns. I.
- WORKING A COAL SEAM OF MODERATE THICKNESS. By G. R. Dixon. E. & M. J., vol. 85, p. 1247. 6½ columns. I.
- WORKING TWO COAL SEAMS IN CLOSE PROXIMITY. By W. F. White. E. & M. J., vol. 87, p. 756. 2¼ columns. I.
- A METHOD OF WORKING A THICK COAL SEAM. By G. Poole. E. & M. J., vol. 86, p. 15. 5½ columns. I.
- NOTES ON WORKING THE THICK COAL OF SOUTH STAFFORDSHIRE AND WARWICKSHIRE. By L. Holland. T. I. M. E., vol. 37, p. 46. 6½ pages. I.
- HORIZONTAL-SLICE METHOD OF MINING THICK COAL SEAMS, ST. ÉTIENNE. T. I. M. E., vol. 36, p. 408. 12 pages. I.
- MINING A 20-FOOT SEAM AT CARMAUX, FRANCE. E. & M. J., vol. 86, p. 578. 2 columns.
- See also MINING THICK AND MASSIVE DEPOSITS.
- METHOD OF WORKING A STEEP COAL SEAM. By A. Y. Hay. E. & M. J., vol. 89, p. 1331. 8 columns. I.
- WORKING A STEEP COAL SEAM. By A. Y. Hay. M. & M., vol. 31, p. 77. 4½ columns. I.
- COAL MINING IN A VERTICAL SEAM. By H. M. Payne. E. & M. J., vol. 90, p. 469. 1¼ columns. I.
- THE WORKING OF THE INCLINED SEAMS IN THE ST. ÉTIENNE COAL FIELD, AT THE MONTRAM-BERT AND LA BÉRANDIÈRE COLLIÉRIES. By H. C. Annett. T. I. M. E., vol. 36, p. 394. 30½ pages. I.
- THE CHUTE-BREAST SYSTEM OF MINING IN WASHINGTON. M. & M., vol. 30, p. 313. ½ column. I.
- PITCH MINING IN THE HAZLETON DISTRICT. By D. S. Wolfe. Coal Mining Supplement, E. & M. J., vol. 88, p. 25. 5½ columns. I.
- METHODS OF MINING LIGNITE IN ITALY. By C. R. King. E. & M. J., vol. 89, p. 1176. 17¼ columns. I.
- METHOD OF MINING GILSONITE: Use of a Steam Jet. E. & M. J., vol. 89, p. 1115. ¾ column. I.
- See also MINE MAPS.
- See also ROOM-AND-PILLAR MINING, and LONGWALL MINING.
- ### Room-and-Pillar Mining
- A ROOM-AND-PILLAR METHOD. By A. E. Robinson. M. & M., vol. 31, p. 88. ½ column. I.
- ROOM-AND-PILLAR MINING IN THE GREAT FALLS COAL FIELD, MONTANA. E. & M. J., vol. 87, p. 588. ¾ column. I.
- COAL MINING ON THE RETREATING SYSTEM. By H. J. Nelms. E. & M. J., vol. 86, p. 1251. 2½ columns. I.
- COAL MINING BY THE RETREATING ROOM-AND-PILLAR SYSTEM. By H. J. Nelms. E. & M. J., vol. 86, p. 17. 4 columns. I.
- ROOM-AND-PILLAR METHOD OF WORKING COAL, GARY, WEST VIRGINIA. E. & M. J., vol. 88, p. 9. Map.
- ADVANCE AND RETREAT ROOM-AND-PILLAR SYSTEM. By H. J. Nelms. E. & M. J., vol. 89, p. 879. 2½ columns. I.
- METHODS OF MINING ROOM COAL IN WEST VIRGINIA. M. & M., vol. 29, p. 511. ½ column. I.
- METHOD OF WORKING THE HOSMER COAL MINES: Room-and-Pillar. J. C. M. I., vol. 13, p. 243. I.

COAL MINING AT KAYLOR, PENNSYLVANIA. By E. K. Judd. E. & M. J., vol. 88, p. 453. 1½ columns. I.

LIGNITE COAL MINING IN BOHEMIA: Room-and-Pillar Method. By W. S. Hall. M. & M., vol. 29, p. 253. 4½ columns. I.

MINING OF BORAX IN AMERICA: Room-and-Pillar Method. E. & M. J., vol. 88, p. 827. 1 column.

MICA MINING. By A. S. Atkinson. E. & M. J., vol. 87, p. 941. 3½ columns.

See also METHODS OF MINING COAL, and first volume of INDEX.

Longwall Mining

ON THE WORKING OF THIN SEAMS OF COAL, WITH OBSERVATIONS ON LONGWALL AND BORD-AND-PILLAR WORK. By C. C. Greenwell. Min. Mag., vol. 9, p. 413, 6 pages; p. 494, 12½ pages.

LONGWALL IN INCLINED SEAMS. By J. G. MacKenzie. M. & M., vol. 29, p. 491. 3¼ columns. I.

INFLUENCE OF CLEAT IN LONGWALL MINING. E. & M. J., vol. 85, p. 213. 1½ columns.

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PANEL LONGWALL MINING. E. & M. J., vol. 85, p. 894. 1½ columns.

See also PANEL MINING.

AMERICAN LONGWALL MINING METHODS. By H. M. Payne. E. & M. J., vol. 90, p. 1020. 8 columns. Maps.

LONGWALL METHODS OF MINING A COAL SEAM. By L. W. Mayer. E. & M. J., vol. 86, p. 19. 13 columns. I.

LONGWALL ADVANCING IN ANTHRACITE MINING IN PENNSYLVANIA. M. & M., vol. 29, p. 40. 1 column. I.

THE LONGWALL MINES OF ILLINOIS. By W. F. Pellier. E. & M. J., vol. 89, p. 380. 5 columns. I.

THE LONGWALL METHOD OF WORKING IN ENGLAND. By Geo. R. Dixon. E. & M. J., vol. 85, p. 1145. 11½ columns. I.

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LONGWALL MINING AT SEATON-DE-LAVAL COLLIERY, ENGLAND. E. & M. J., vol. 86, p. 765. 8 columns. I.

LONGWALL METHOD IN ENGLAND. E. & M. J., vol. 86, p. 964. 3 columns. I.

LONGWALL MINING IN THE KANSAS STATE MINE. E. & M. J., vol. 89, p. 1159. 9 columns. I. Map.

THE LONGWALL METHOD OF MINING EMPLOYED IN THE FROZEN GRAVELS OF THE NORTH. Min. & Sci. Press, vol. 98, p. 382. 8 columns. I.

See also MINING FROZEN GRAVELS, METHODS OF MINING COAL and COST OF COAL MINING.

Panel Mining

MINING COAL WITH THE PANEL SYSTEM. By A. H. Stow. E. & M. J., vol. 85, p. 892. 10½ columns. I.

See also LONGWALL MINING, first volume of INDEX, and COST OF COAL MINING.

Drawing Pillars in Coal Mines

PILLAR DRAWING. By J. Jenkins. M. & M., vol. 30, p. 151. 4 columns. I.

DRAWING PILLARS IN COAL MINING. M. & M., vol. 31, p. 415. ½ column. I.

METHODS OF REMOVING COAL PILLARS. By F. W. Cunningham. M. & M., vol. 31, p. 495. 8 columns. I.

DRAWING OF PILLARS IN THE PITTSBURG SEAM. E. & M. J., vol. 90, p. 521. 10 columns. I.

METHOD OF ROBBING PILLARS IN THE POCAHONTAS REGION. M. & M., vol. 29, p. 399. 1 column. I.

PILLAR DRAWING IN THE CONNELLSVILLE REGION. T. A. I. M. E., vol. 41, p. 229. 10 pages. I.

ROBBING PILLARS IN THE PITCHING COAL SEAMS, HAZLETON DISTRICT. Coal Mining Supplement, E. & M. J., vol. 88, p. 27. $\frac{1}{2}$ column.

RECOVERING ABANDONED COAL PILLARS. By W. L. Hamilton. E. & M. J., vol. 88, p. 22. 6 columns. I.

WORKING THE WALLS OR DRAWING PILLARS IN COAL MINING BY LONGWALL. M. & M., vol. 29, p. 492. 1 column.

ROBBING PILLARS AT THE SEATON-DELAVAL COLLIERY, ENGLAND. E. & M. J., vol. 86, p. 768. 1 column. I.

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RECOVERING ORE FROM PILLARS. E. & M. J., vol. 89, p. 699. $\frac{1}{2}$ column.

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Breaking Down Coal at the Face

METHODS OF UNDERCUTTING COAL. E. & M. J., vol. 89, p. 622. $2\frac{1}{2}$ columns.

METHOD OF UNDERCUTTING IN THE WIND ROCK COAL MINE, TENNESSEE. M. & M., vol. 31, p. 66. 1 column.

WORKING THE BREASTS IN THE PITCHING SEAMS, HAZLETON DISTRICT. Coal Mining Supplement, E. & M. J., vol. 88, p. 27. $\frac{1}{2}$ column. I.

BREAKING DOWN COAL AT THE FACE IN WEST VIRGINIA: At Thomas. M. & M., vol. 30, p. 204. I.

METHOD OF WORKING ROOMS IN COAL-TON MINE, WEST VIRGINIA. M. & M., vol. 30, p. 190. $\frac{1}{2}$ column. I.

WORKING AT THE FACE IN THE LIGNITE MINES OF ITALY. E. & M. J., vol. 89, p. 1177. 2 columns. I.

See also MINING MACHINES AT THE FACE, ELECTRIC COAL MINING MACHINES, MECHANICAL MINING APPLIANCES and COST OF COAL MINING.

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Methods of Mining: General and Miscellaneous

MINING METHODS AND COSTS AT THE ESPERANZA MINE, MEXICO. By W. E. Hindry. Min. & Sci. Press, vol. 99, p. 846. 6 columns. I.

METHOD OF MINING BARITE IN MISSOURI. T. A. I. M. E., vol. 40, p. 728. $6\frac{1}{2}$ pages. I.

CLAY MINING AND ITS RELATION TO COAL MINING. By R. R. Hice. E. & M. J., vol. 88, p. 105. $7\frac{1}{2}$ columns.

METHODS OF MINING AND HANDLING ORE IN BUTTE. By E. Higgins. E. & M. J., vol. 85, p. 97. 8 columns. I.

See also METHODS OF HANDLING MINERAL AND COAL.

MINING METHODS EMPLOYED AT CANANEA, MEXICO. By M. J. Elsing. E. & M. J., vol. 90, p. 914, $9\frac{3}{4}$ columns, I.; p. 963, $10\frac{3}{4}$ columns, I.

MINING METHODS IN THE CLIFTON-MORENCI DISTRICT, ARIZONA. Min. & Sci. Press, vol. 101, p. 831. 12 columns. I.

MICHIGAN COPPER MINING METHODS. By L. Fraser. Min. & Sci. Press, vol. 96, p. 847. $6\frac{1}{2}$ columns. I.

WORK AND METHODS AT THE YELTA COPPER MINE, SOUTH AUSTRALIA.

- By L. G. Hancock. T. Au. I. M. E., vol. 11, p. 97. 7 pages.
- UNDERGROUND MINING METHODS AT THE QUINCY COPPER MINE, MICHIGAN. By G. R. McLaren. J. C. M. I., vol. 10, p. 399. 18½ pages. I.
- METHODS OF MINING IRON ORE AT SUNRISE, WYOMING. By B. W. Vallat. E. & M. J., vol. 85, p. 399. 9½ columns. I.
- MINING ON THE GOGEBIC RANGE. By P. S. Williams. M. & M., vol. 31, p. 712. 4½ columns. I.
- METHOD OF MINING AT THE NORTH STAR MINES, GRASS VALLEY, CALIFORNIA. E. & M. J., vol. 87, p. 397. 2 columns. I.
- COAL MINING METHODS IN GOLD MINES. E. & M. J., vol. 90, p. 1043. 1½ columns.
- See also METHODS OF MINING COAL.
- THE MEXICAN METHOD OF MINING. E. & M. J., vol. 86, p. 311. 1½ columns.
- NEW MINING AND MILLING PRACTICE ON THE RAND. By E. M. Weston. E. & M. J., vol. 86, p. 323. 5 columns.
- MINING AT THE REDJANG-LEBONG GOLD-SILVER MINE, SUMATRA. By H. Philp. P. C. M. & M. Soc. S. A., vol. 10, p. 315. 6½ columns.
- THE PILGRIMS REST GOLD FIELDS AND MINING METHODS. By J. Moyle-Phillips. P. C. M. & M. Soc. S. A., vol. 16. 3¼ columns.
- MINING PRACTICE AT KALGOORLIE, WEST AUSTRALIA. By G. W. Williams. E. & M. J., vol. 85, p. 193. 8½ columns. I.
- METHOD OF MINING AT THE HELEN MINE, MICHIPICOTON, ONTARIO. J. C. M. I., vol. 13, p. 123. 4 pages. I.
- NOTES ON PRACTICAL MINING IN BENDIGO. By L. A. Samuels. T. Au. I. M. E., vol. 8, pt. 2, p. 192. 12 pages. I.
- SOME NOTES ON THE MINING PRACTICE OF THE WITWATERSRAND GOLD FIELDS, SOUTH AFRICAN REPUBLIC. By G. A. Denny. T. Au. I. M. E., vol. 5, p. 8. 62 pages. I.
- MINING METHODS AT KALGOORLIE, WEST AUSTRALIA MINES. E. & M. J., vol. 85, p. 196. 1 column.
- MINING AT THE PROMONTORIO SILVER MINE, DURANGO, MEXICO. T. A. I. M. E., vol. 38, p. 747. 2 pages.
- METHODS OF DEEP LEAD MINING. P. C. M. & M. Soc. S. A., vol. 10, p. 377. 2½ columns.
- METHOD OF MINING THE DEEP LEAD IN AUSTRALIA. By D. H. Browne. Min. & Sci. Press, vol. 97, p. 568. 2 columns.
- See also AUSTRALIA, OCCURRENCE OF GOLD, and AURIFEROUS GRAVELS.
- PRACTICAL HINTS ON DEEP ALLUVIAL MINING. By D. H. Browne. T. Au. I. M. E., vol. 7, p. 61. 10 pages.
- THE STULL-SET METHOD OF MINING AT THE HECLA MINE, IDAHO. E. & M. J., vol. 89, p. 312. 1 column.
- SQUARE-SET MINING, MOUNT MORGAN MINE. E. & M. J., vol. 87, p. 749. 1 column. I.
- SQUARE-SET SYSTEM IN THE NEW SOUTH WALES MINES. T. Au. I. M. E., vol. 9, p. 119. 4½ pages. I.
- See also SQUARE-SET TIMBERING.
- MINING AND STOPING METHODS IN THE CŒUR D'ALENE. By J. Tysowski. E. & M. J., vol. 90, p. 452. 8½ columns. I.
- MINING METHOD IN THE CŒUR D'ALENE REGION. Min. & Sci. Press, vol. 96, p. 622. 4 columns. I.
- GRANBY MINING METHODS. By C. M. Campbell. J. C. M. I., vol. 11, p. 392. 12 pages. I.
- METHODS OF MINING IN THE GRANBY ORE BODIES. By C. M. Campbell. E. & M. J., vol. 87, p. 252. 13½ columns. I.

DEPARTURE IN SHEET-ORE MINING IN THE JOPLIN DISTRICT. By T. Chapman. E. & M. J., vol. 87, p. 942. 1 column. I.

METHOD OF MINING EMPLOYED IN THE LEAD MINES OF MECHERNICH, PRUSSIA. E. & M. J., vol. 86, p. 169. 9½ columns. I.

METHODS OF WORKING THE NITER DEPOSITS OF CHILE. E. & M. J., vol. 80, p. 20. 3 columns. I.

THE WORKING OF OIL-SHALE AT PUMPHERSTON, SCOTLAND. By W. Caldwell. T. I. M. E., vol. 36, p. 581. 9½ pages. I.

MINING METHODS IN THE NORTH. By T. A. Rickard. Min. & Sci. Press, vol. 97, p. 810, 8 columns, I.; vol. 98, p. 86, 8 columns, I.; p. 382, 8 columns, I.; p. 587, 10 columns, I.

DRY-WALL MINING AT PANAGUN, BRAZIL. Min. Mag., London, vol. 3, p. 379. 1½ columns. I.

A REVOLUTION IN MINING METHODS. By G. E. Walcott. Min. & Sci. Press, vol. 101, p. 707. 6 columns. I.

A METHOD OF MINING IN HEAVY GROUND. By W. L. Fleming. E. & M. J., vol. 88, p. 375. 3½ columns. I.

THE PANEL SYSTEM AS APPLIED TO METAL MINING. By H. E. West. E. & M. J., vol. 87, p. 1177. 8 columns. I.

See also ROOM AND PILLAR MINING, and METHODS OF COAL MINING.

RALEIGH COUNTY MINING METHODS, WEST VIRGINIA. By H. H. Stoek. M. & M., vol. 29, p. 471. 10 columns. I.

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THE MILLING METHOD OF MINING AS EMPLOYED AT THE HELEN IRON MINE. J. C. M. I., vol. 13, p. 123. 4 pages. I.

MINING THE TREADWELL LODE. By T. A. Rickard. Min. & Sci. Press, vol. 97, p. 85. 7½ columns. I.

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THE DOME OF EQUILIBRIUM AND THE CAVING SYSTEM OF MINING. By C. T. Rice. Min. & Sci. Press, vol. 95, p. 85. 2½ columns.

THE CAVING SYSTEM AT THE DARIEN MINE, PANAMA. By A. B. Chase. Min. & Sci. Press, vol. 95, p. 238. 1½ columns. I.

THE CAVING METHOD AS EMPLOYED AT THE CONSOLIDATED MERCUR MINES. E. & M. J., vol. 89, p. 1273. 13 columns. I.

CANANEA CAVING AND SLICING SYSTEMS. By R. L. Herrick. M. & M., vol. 30, p. 23. 13½ columns. I.

TOP-SLICING MINING METHODS AT CANANEA, MEXICO. By C. De Kalb. Min. & Sci. Press, vol. 101, p. 230. 2½ columns. I.

THE TOP-SLICE SYSTEM AT CANANEA. M. & M., vol. 30, p. 23. 13 columns. I.

THE SLICING SYSTEM AT CANANEA, MEXICO: A Caving Method. E. & M. J., vol. 90, p. 915. 1½ columns. I.

THE CAVING SYSTEM AT CANANEA: Caving Pillars. E. & M. J., vol. 90, p. 963. 4 columns. I.

- CAVING METHODS IN THE ARIZONA COPPER MINES: Top-Slice and Sub-Drift Methods. Min. & Sci. Press, vol. 99, p. 392. $1\frac{1}{2}$ columns. I.
- THE MITCHELL SLICING SYSTEM AT BISBEE, ARIZONA. By M. J. Elsing. E. & M. J., vol. 90, p. 174. 6 columns. I.
- THE MITCHELL SLICING SYSTEM AT BISBEE, ARIZONA. E. & M. J., vol. 90, p. 1291. $2\frac{3}{4}$ columns.
- THE TOP-SLICE SYSTEM AT METCALF, ARIZONA. E. & M. J., vol. 90, p. 120. $\frac{1}{2}$ column. I.
- BLOCK-CAVING AT THE CLIFTON-MORENCI MINES. Min. & Sci. Press, vol. 101, p. 835. 1 column. I.
- THE CAVING SYSTEM OF MINING EMPLOYED AT MIAMI, ARIZONA. M. & M., vol. 30, p. 755. 4 columns. I.
- THE CAVING METHOD EMPLOYED AT MIAMI, ARIZONA. M. & M., vol. 30, p. 83. 1 column. I.
- METHOD OF MINING AT MIAMI, ARIZONA: Top-Slice and Sub-Drift Caving Systems. Min. & Sci. Press, vol. 99, p. 657. 3 columns. I.
- THE CAVING METHOD AS EMPLOYED IN THE GLOBE-KELVIN DISTRICT, ARIZONA. E. & M. J., vol. 89, p. 813. 2 columns. I.
- CAVING AT BINGHAM CANYON, UTAH. Min. & Sci. Press, vol. 98, p. 520, 3 columns, I.; p. 555, 3 columns, I.
- THE CAVING SYSTEM OF MINING AT ELY, NEVADA. M. & M., vol. 29, p. 25, $\frac{2}{3}$ column; p. 83, $\frac{1}{2}$ column.
- IRON MINING IN MINNESOTA. By E. K. Soper. Min. & Sci. Press, vol. 101, p. 767. $5\frac{1}{2}$ columns. I.
- MARQUETTE RANGE CAVING METHOD. By H. H. Stoek. M. & M., vol. 30, p. 193. $14\frac{2}{3}$ columns. I.
- NOTES ON CAVING SYSTEM IN NORTHERN IRON MINES: Sub-drift Method. By A. H. Fay. E. & M. J., vol. 88, p. 961. 9 columns. I.
- CHANGE OF METHOD IN MINING SOFT ORE. By S. R. Elliott. Min. & Sci. Press, vol. 99, p. 97. 4 columns. I.
- THE TOP-SLICE METHOD IN THE GOGEBIC RANGE. M. & M., vol. 31, p. 712. $4\frac{1}{2}$ columns. I.
- UNDERGROUND METHODS OF MINING USED ON THE GOGEBIC RANGE. By P. S. Williams. T. L. S. M. I., vol. 15, p. 179. 16 pages. I.
- See also METHODS OF MINING: GENERAL AND MISCELLANEOUS, and MINING THICK AND MASSIVE DEPOSITS, also COST OF METAL MINING.

Pocket Mining

- O'HARA POCKET MINE, TUOLUMNE COUNTY, CALIFORNIA. Min. & Sci. Press, vol. 96, p. 782. $1\frac{1}{2}$ columns.
- See also first volume of INDEX.

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Methods of Stopping in Mines

- NOTES ON DIFFERENT METHODS OF STOPPING. P. C. M. & M. Soc. S. A., vol. 10, p. 301. $1\frac{2}{3}$ columns.
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- STOPPING IN THE SLICING SYSTEM. E. & M. J., vol. 89, p. 1053. $\frac{2}{3}$ column.
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- PORTABLE SCAFFOLD FOR MINE USE. E. & M. J., vol. 89, p. 404. 1 column. I.
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- DRILLING AND BLASTING IN STOPPING ON THE RAND. P. C. M. & M. Soc. S. A., vol. 9, p. 14. 1 column.
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- STOPING AT THE QUINCY MINE, MICHIGAN.** J. C. M. I., vol. 10, p. 405 1½ pages. I.
- STOPING METHODS IN MINES OF DUCKTOWN BASIN: Underhand Work.** By J. Tyssowski. E. & M. J., vol. 89, p. 463. 5 columns. I.
- STOPING IN THE SUPERIOR AND BOSTON MINE, ARIZONA.** M. & M., vol. 31, p. 112. 4 columns.
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- STOPING WITHOUT TIMBERS AT METCALF, ARIZONA.** E. & M. J., vol. 90, p. 119. 2 columns. I.
- STOPING AT HOMESTAKE MINE, SOUTH DAKOTA.** By J. Tyssowski. E. & M. J., vol. 90, p. 74. 7½ columns. I.
- METHOD OF STOPING IN THE TREADWELL MINES.** Min. & Sci. Press, vol. 97, p. 89. 2½ columns. I.
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- METHODS OF STOPING AT THE NORTH STAR MINES, GRASS VALLEY, CALIFORNIA.** E. & M. J., vol. 87, p. 398. ½ column. I.
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- STOPING IN THE RAND MINES.** P. C. M. & M. Soc. S. A., vol. 6, p. 124. 12 columns. I.
- STOPING IN THE RAND MINES.** P. C. M. & M. Soc. S. A., vol. 8, p. 257. 9 columns. I.
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- SILVER-LEAD ORE MINING AND THE VARIOUS SYSTEMS OF STOPING AND TIMBERING EMPLOYED IN BROKEN HILL, NEW SOUTH WALES.** By E. E. Beaumont. T. Au. I. M. E., vol. 9, p. 117. 26 pages. I.
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- STOPING METHODS: Lead Mines, Cumberland, England.** E. & M. J., vol. 85, p. 297. 3 columns. I.
- THE METHOD OF BREAST STOPING AT CRIPPLE CREEK.** By G. E. Walcott. E. & M. J., vol. 85, p. 102. 5 columns. I.
- STOPING WITH SQUARE-SETS AT THE METCALF MINE, ARIZONA.** E. & M. J., vol. 90, p. 120. 1 column. I.
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- OVERHAND STOPING AT THE YELTA COPPER MINE, SOUTH AUSTRALIA. T. Au. I. M. E., vol. 11, p. 99. $\frac{1}{2}$ page.
- OVERHAND STOPE OR VERTICALLY STEPPED-FACE METHOD OF MINING COAL. T. I. M. E., vol. 36, p. 400. 6 pages. I.
- OVERHAND AND UNDERHAND STOPING IN LARGER ORE BODIES. E. & M. J., vol. 86, p. 313. 1 column.
- OVERHAND STOPING AT THE MONTEZUMA MINES, COSTA RICA. E. & M. J., vol. 90, p. 715. 1 column.
- OVERHAND STOPING METHODS IN THE CENTRE STAR MINES, BRITISH COLUMBIA. E. & M. J., vol. 89, p. 18. 2 columns.
- OVERHAND STOPING AT METCALF, ARIZONA. E. & M. J., vol. 90, pp. 121 and 123. I.
- BACK OR OVERHAND STOPING AT CANANEA. E. & M. J., vol. 90, p. 964. 2 columns. I.
- BACK STOPING. P. C. M. & M. Soc. S. A., vol. 7, p. 367. $\frac{1}{4}$ column.
- BACK STOPING VS. UNDERHAND STOPING IN LARGE BODIES OF IRON PYRITES. By J. J. Rutledge. E. & M. J., vol. 86, p. 365. $2\frac{1}{3}$ columns.
- A MODIFIED SYSTEM OF BACK STOPING. By J. E. Wilson. E. & M. J., vol. 90, p. 950. $1\frac{1}{2}$ columns. I.
- BACK STOPING IN THE COPPER MINES OF MICHIGAN. Min. & Sci. Press, vol. 96, p. 847. 1 column.
- STULL STOPING AT THE COMBINATION MINE. Min. & Sci. Press, vol. 95, p. 435. 6 columns. I.
- RILL STOPING. E. & M. J., vol. 89, p. 357. $\frac{1}{2}$ column.
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- RILL STOPING AT KALGOORLIE. Min. & Sci. Press, vol. 100, p. 391. 1 column.
- RILL STOPING AT THE SUPERIOR AND BOSTON MINE, ARIZONA. M. & M., vol. 31, p. 112. 4 columns. I.
- SHRINKAGE STOPING AT THE CRESSON MINE, CRIPPLE CREEK, COLORADO. M. & M., vol. 31, p. 735. $3\frac{1}{4}$ columns. I.
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- SHRINKAGE STOPING AT THE LOS PILARES MINE, MEXICO. M. & M., vol. 31, p. 108. 7 columns. I.
- ADVANTAGES AND DISADVANTAGES OF SHRINKAGE STOPING. T. I. M. & M., vol. 18, p. 297. 4 pages.
- SHRINKAGE STOPING ON THE RAND. Min. Mag. London, vol. 4, p. 145. 2 columns. I.
- SHRINKAGE STOPING AT DUCKTOWN MINES. E. & M. J., vol. 89, p. 464. 1 column. I.
- SHRINKAGE STOPING. E. & M. J., vol. 89, p. 358. $\frac{2}{3}$ column.
- THE SHRINKAGE SYSTEM OF STOPING AS EMPLOYED AT KALGOORLIE. Min. & Sci. Press, vol. 100, p. 391. 1 column.
- SHRINKAGE STOPING AT THE LOS PILARES MINE, MEXICO. Min. & Sci. Press, vol. 100, p. 888. 2 columns. I.
- SHRINKAGE STOPING IN WESTERN AUSTRALIA. By F. P. Rolfe. M. & M., vol. 30, p. 210. $6\frac{1}{3}$ columns. I.
- THE SHRINKAGE OR "LAY" SYSTEM OF STOPING. P. C. M. & M. Soc. S. A., vol. 10, p. 301. $\frac{1}{2}$ column.
- SHRINKAGE STOPING IN WESTERN AUSTRALIA. P. C. M. & M. Soc. S. A., vol. 10, p. 30. $\frac{2}{3}$ column.
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STOPING AT THE CABIN BRANCH MINE, VIRGINIA. By J. Tyssowski. E. & M. J., vol. 89, p. 32. $1\frac{1}{2}$ columns.

STOPING IN BARITE MINES, MISSOURI. T. A. I. M. E., vol. 40, p. 728. $6\frac{1}{2}$ pages. I.

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Under-Sea Mining

SUBMARINE COAL MINING. By J. Johnson. J. M. Soc. N. S., vol. 13, p. 47. 4 pages.

SUBMARINE MINING. Min. Mag., vol. 8, p. 56. 4 pages.

SUBMARINE DIVERS IN MINES. By G. F. Duck. M. & M., vol. 31, p. 446. $1\frac{3}{4}$ columns.

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THAWING FROZEN GRAVEL. Min. & Sci. Press, vol. 97, p. 812. 2 columns. I.

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SPACE OCCUPIED BY BROKEN STONE. M. & M., vol. 30, p. 334. $\frac{1}{2}$ column.

A FILLING METHOD OF MINING SOFT ORE. Min. & Sci. Press, vol. 99, p. 97. 4 columns. I.

THE FILLING SYSTEM APPLIED TO WIDE ORE BODIES. E. & M. J., vol. 87, p. 1178. 5 columns. I.

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FILLING STOPES WITH TAILING AT KALGOORLIE. Min. Mag., London, vol. 3, p. 452. 1 column. I.

THE FILLING SYSTEMS AT THE BROKEN HILL MINES, NEW SOUTH WALES. E. & M. J., vol. 86, p. 794. 4 columns. I.

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SILTING AT WAIHI. By A. Jarman. Min. Mag., London, vol. 3, p. 191. 8 columns. I.

FILLING METHOD OF MINING AT THE HOMESTAKE MINE. E. & M. J., vol. 90, p. 74. $7\frac{1}{2}$ columns. I.

FILLING IN THE CLIFTON-MORENCI MINES. Min. & Sci. Press, vol. 101, p. 831. $\frac{1}{4}$ column.

FILLING METHOD USED IN ARIZONA COPPER MINES. Min. & Sci. Press, vol. 99, p. 393. $\frac{1}{2}$ column.

ROCK FILLING AT RIO TINTO. By E. Levy. E. & M. J., vol. 89, p. 363. $2\frac{3}{4}$ columns.

FILLING METHOD OF MINING EMPLOYED IN THE COAHUILA DISTRICT, MEXICO. E. & M. J., vol. 89, p. 1073. $\frac{1}{2}$ column.

"DRY-WALL" FILLING METHOD IN THE SOUTH RANGE MINES, MICHIGAN. Min. & Sci. Press, vol. 96, p. 850. $\frac{1}{2}$ column. I.

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FILLING STOPES AT THE SIMMER AND JACK. Min. Mag. London, vol. 4, p. 67. $1\frac{1}{2}$ columns. I.

FILLING METHOD EMPLOYED AT THE LOS PILARES MINE, MEXICO. M. & M., vol. 31, p. 109. $4\frac{1}{2}$ columns. I.

FILLING ABANDONED WORKINGS WITH CULM OR SAND: European Practice. By H. M. Payne. E. & M. J., vol. 89, p. 522. $4\frac{1}{2}$ columns. I.

SAND FILLING IN THE TRANSVAAL MINES. Min. & Sci. Press, vol. 101, p. 333. $\frac{2}{3}$ column.

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ASHES FOR PILLARS IN COAL MINES. E. & M. J., vol. 86, p. 581. $\frac{3}{4}$ column.

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THE ADVANTAGES OF FLUSHING IN COAL MINING. By L. W. Mayer. E. & M. J., vol. 86, p. 1. $12\frac{1}{4}$ columns. I.

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DEEP MINING IN TRANSVAAL. By R. GASCOYNE. Min. & Sci. Press, vol. 101, p. 332. $4\frac{2}{3}$ columns. I.

THE DEEP MINES OF KEWEENAW POINT, MICHIGAN. Min. & Sci. Press, vol. 96, p. 847. $\frac{1}{2}$ column.

DEEP MINING IN THE GUANAJUATO DISTRICT, MEXICO. By F. H. Robert. E. & M. J., vol. 90, p. 1310. $6\frac{1}{4}$ columns. I.

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Excavators and Unloaders**

EARTHWORK: The Profile of Quantities. By S. B. Fisher. P. E. Soc. W. Pa., vol. 3, p. 45. $4\frac{1}{2}$ pages. D.

THE CULEBRA CUT OF THE PANAMA CANAL. By A. S. Zinn. J. W. Soc. E., vol. 12, p. 820. 19 pages. I.

POWER SHOVEL FOR UNDERGROUND WORK. E. & M. J., vol. 86, p. 1056. 2 columns. I.

THE THEW AUTOMATIC STEAM SHOVEL FOR UNDERGROUND WORK. M. & M., vol. 29, p. 575. 2 columns.

STEAM SHOVEL WORK AT ELY, NEVADA. Min. & Sci. Press, vol. 98, p. 59. 2 columns. I.

STEAM SHOVEL WORK IN BINGHAM CANYON, UTAH. Min. & Sci. Press, vol. 98, p. 518. $1\frac{1}{2}$ columns. I.

STEAM SHOVEL IN THE AMUER REGION. Min. & Sci. Press, vol. 98, p. 731. 1 column. I.

STEAM SHOVEL IN COPPER MINING, ELY, NEVADA. By F. S. Pheby. Min. & Sci. Press, vol. 97, p. 161. 1 column. I.

BREAKING GROUND FOR STEAM SHOVELS: Gophering. E. & M. J., vol. 88, p. 696. $1\frac{3}{4}$ columns.

MINING COPPER ORE WITH STEAM SHOVELS. By L. A. Palmer. Min. Mag. London, vol. 4, p. 293. 5 columns. I.

THE DRAG-LINE EXCAVATOR. By J. P. Hutchins. Min. Mag., London, vol. 3, p. 359. $6\frac{3}{4}$ columns. I.

A NEW TYPE OF GIANT EXCAVATOR. By F. A. Talbot. E. & M. J., vol. 90, p. 564. $2\frac{1}{3}$ columns. I.

See also first volume of INDEX, and OPEN-CUT MINING.

**Open-cut Mining, Milling Methods
Etc.**

STRIPPING CLINTON IRON ORE IN NEW YORK STATE. By E. Higgins. E. & M. J., vol. 86, p. 1150. 8 columns. I.

STRIPPING IN BINGHAM CANYON. E. & M. J., vol. 87, p. 1186. 1 column.

STRIPPING COAL BEDS. M. & M., vol. 31, p. 69. 4 columns. I.

STRIPPING AND OPEN-CUT WORK IN THE JOPLIN DISTRICT. M. & M., vol. 30, p. 503. 4 columns. I.

NOVEL SPOIL TRANSPORTER FOR STRIPPING OPERATIONS. By F. A. Talbot. E. & M. J., vol. 88, p. 510. 7 columns. I.

OPEN-CUT MINING IRON ORES IN CUBA. M. & M., vol. 31, p. 247. 2 columns. I.

LOCATION OF OPEN-CUT PITS. M. & M., vol. 29, p. 343. $\frac{1}{3}$ column.

OPEN-PIT IRON MINING ON THE MESABI RANGE. By J. F. Walff. M. & M., vol. 29, p. 291, 6 columns, I.; p. 343, 14 columns, I.

OPEN-CUT MINING AT THE PREMIER MINE, SOUTH AFRICA. E. & M. J., vol. 89, p. 370. $1\frac{1}{2}$ columns. I.

OPEN-CUT MINING AT THE MOUNT MORGAN MINE. E. & M. J., vol. 87, p. 748. $2\frac{1}{2}$ columns. I.

OPEN-CUT MINING IN THE LORRAINE OÖLITIC IRON ORE DEPOSITS OF GERMANY AND FRANCE. E. & M. J., vol. 87, p. 1224. 2 columns.

OPEN-CUT MINING IN ALASKA AND THE YUKON. Min. & Sci. Press, vol. 98, p. 587. 8 columns. I.

OPEN-CUT MINING IN THE TURQUOISE MINES OF NEW MEXICO. E. & M. J., vol. 86, p. 845. $1\frac{3}{4}$ columns.

TIN MINING IN ULN SELANGOR, FEDERATED MALAY STATES. By E. Nightingale. T. I. M. & M., vol. 17, p. 159. $12\frac{1}{2}$ pages. I.

TONNAGE ESTIMATION IN DUMPS, OPEN CUTS, ETC. By R. J. Donaldson. E. & M. J., vol. 87, p. 640. $8\frac{3}{4}$ columns. I.

HYDRAULIC EXCAVATION ON THE PANAMA CANAL. Min. & Sci. Press, vol. 100, p. 609. $7\frac{1}{2}$ columns. I.

MINING AND MILLING FLORIDA PHOSPHATES. By C. A. Stone. E. & M. J., vol. 87, p. 490. 8 columns. I.

STRIPPING A VEIN BY HYDRAULICKING. By A. F. Hughes. Min. & Sci. Press, vol. 99, p. 788. 2½ columns. I.

See also HYDRAULIC MINING.

THE MILLING SYSTEM AS EMPLOYED IN MINING THE IRON ORES OF SUNRISE, WYOMING. E. & M. J., vol. 85, p. 400. 3 columns. I.

NOTES ON THE MILLING SYSTEM OF MINING. By A. H. Fay. E. & M. J., vol. 88, p. 919. 2¼ columns. I.

THE MILLING SYSTEM OF MINING AT MOUNT MORGAN MINE. E. & M. J., vol. 87, p. 836. 1 column.

GLORY HOLE MINING AT DE LAMAR, NEVADA. By W. R. Wardner. E. & M. J., vol. 87, p. 451. 6 columns. I.

GLORY HOLE MINING AT PHOENIX, BRITISH COLUMBIA. E. & M. J., vol. 88, p. 1260. 1½ columns. I.

See also MINING THICK AND MASSIVE DEPOSITS, EXCAVATION OF EARTH, ROCK AND ORE, ETC., COST OF METAL-MINING, and COST OF STRIPPING.

Quarrying Methods

DEVELOPMENTS IN QUARRYING PROCESSES. By A. S. Atkinson. E. & M. J., vol. 88, p. 208. 5 columns.

See also first column of INDEX, and COST OF MINE AND MILL CONSTRUCTION.

Hydraulic Mining: Methods and Appliances, Giants, Elevators, Etc.

HYDRAULIC MINING. Min. & Sci. Press, vol. 20, p. 322. 1½ columns.

NOTES ON HYDRAULIC MINING. M. & M., vol. 28, p. 1. 8 pages. I.

A WORD ABOUT HYDRAULIC MINING. Min. & Sci. Press, vol. 20, p. 5. 1¼ columns. I.

HYDRAULIC MINING OF AURIFEROUS GRAVELS. By J. W. Phillips. J. W. Soc. E., vol. 15, p. 431. 40 pages. I.

EXAMINING AND FITTING UP A HYDRAULIC MINE. By H. A. Brigham. E. & M. J., vol. 86, p. 1257, 10¼ columns; vol. 87, p. 23, 19¾ columns, I.

MOBILITY IN PLACER MINING. By J. P. Hutchins. Min. Mag., London, vol. 3, p. 60. 3½ columns. I.

HYDRAULIC MINING ON THE PACIFIC COAST. By A. H. Martin. M. & M., vol. 30, p. 261. 4½ columns. Maps.

ART OF PLACER PIPING. By D. H. Stovall. Min. & Sci. Press, vol. 99, p. 661. 2½ columns. I.

USE OF BY-WATER SUPPLY FOR HYDRAULIC MINING. By D. H. Stovall. Min. & Sci. Press, vol. 101, p. 119. 2½ columns. I.

ALLUVIAL MINING: Its Necessary Plant and Appliances. By S. C. N. Bell. T. Au. I. M. E., vol. 12, p. 30. 32 pages.

THE HYDRAULIC EQUIPMENT OF THE OLD CHANNEL MINES. By J. M. Nicol. Min. & Sci. Press, vol. 95, p. 333. 6 columns. I.

PUMP SLUICING FOR GOLD. By H. Herman. Min. & Sci. Press, vol. 98, p. 252. 2¼ columns.

GRAVEL PUMP MINING, WESTERN AUSTRALIA. T. Au. I. M. E., vol. 8, pt. 1, p. 33. 4 pages.

See also PUMPS FOR MINE USE.

SLUICES AND UNDERCURRENTS. T. Au. I. M. E., vol. 4, p. 50. 6 pages.

AUSTRALIAN SLUICES. P. C. M. & M. Soc. S. A., vol. 8, p. 171. 4 columns. I.

A SLUICE FOR HYDRAULIC MINING. E. & M. J., vol. 86, p. 1259. 1¼ columns.

SLUICES USED IN THE LA GRANGE HYDRAULIC MINE. Min. & Sci. Press, vol. 97, p. 492. 3 columns. I.

- THE BLOWING-DOWN SYSTEM OF SLUICING.** By J. Park. Min. & Sci. Press, vol. 97, p. 218. 2 columns. I.
- THE LONG TOM AND HYDRAULIC MINING IN CALIFORNIA.** By R. H. Campbell. Min. & Sci. Press, vol. 100, p. 934. 3 columns. I.
- DROP SLUICES: Undercurrents.** By D. H. Stovall. Min. & Sci. Press, vol. 100, p. 801. $1\frac{1}{4}$ columns. I.
- UNDERCURRENTS USED IN THE SOUTH AFRICAN TIN FIELDS.** E. & M. J., vol. 89, p. 471. 1 column. I.
- UNDERCURRENTS FOR HYDRAULIC MINING.** E. & M. J., vol. 87, p. 25. $1\frac{1}{2}$ columns. I.
- SLUICE CONSTRUCTION FOR HYDRAULIC MINING.** E. & M. J., vol. 87, p. 23. 7 columns. I.
- HAND SLUICING AT NOME AND THE YUKON.** Min. & Sci. Press, vol. 98, p. 86. 8 columns. I.
- DITCHES IN HYDRAULIC MINING.** E. & M. J., vol. 87, p. 28. $1\frac{1}{4}$ columns.
- THE YUKON DITCH.** By T. A. Rickard. Min. & Sci. Press, vol. 98, p. 117, $7\frac{3}{4}$ columns, I.; p. 148, $6\frac{1}{2}$ columns, I.
- THE BONANZA DITCH OF THE YUKON GOLD COMPANY.** By E. Jacobs. E. & M. J., vol. 88, p. 457. 2 columns. I.
- DRAIN TUNNEL IN HYDRAULIC MINING.** E. & M. J., vol. 86, p. 1259. 1 column.
- FLUMES IN HYDRAULIC MINING.** E. & M. J., vol. 87, p. 28. 2 columns. I.
- See also **FLUMES: MATERIALS OF CONSTRUCTION AND DESIGN, AND DITCHES AND CHANNELS.**
- HYDRAULICKING PIPE-CLAY GRAVEL.** D. H. Stovall. Min. & Sci. Press, vol. 100, p. 159. $2\frac{1}{4}$ columns. I.
- HYDRAULICKING THE COVER OFF A VEIN.** Min. & Sci. Press, vol. 99, p. 788. $2\frac{1}{4}$ columns. I.
- HYDRAULIC ELEVATORS.** E. & M. J., vol. 87, p. 27. 1 column.
- GRAVEL ELEVATION IN SISKIYOU COUNTY, CALIFORNIA.** By C. S. Haley. Min. & Sci. Press, vol. 101, p. 701. $2\frac{1}{2}$ columns. I.
- THE RUBLE HYDRAULIC ELEVATOR.** By J. McD. Porter. E. & M. J., vol. 88, p. 1213. 5 columns. I.
- THE RUBLE BOULDER AND GRAVEL ELEVATOR.** E. & M. J., vol. 86, p. 902. 3 columns. I.
- THE RUBLE HYDRAULIC ELEVATOR.** By J. M. Porter. T. A. I. M. E., vol. 40, p. 561. 5 pages. I.
- See also **ELEVATORS.**
- HYDRAULIC SUCTION ELEVATOR.** By D. B. Waters. T. Au. I. M. E., vol. 11, p. 114. 6 pages. I.
- A ROCKER.** By D. Waterman. Min. & Sci. Press, vol. 98, p. 293. $1\frac{1}{2}$ columns. I.
- THE BUTARA OR WASHING MACHINE FOR GOLD GRAVELS IN SIBERIA.** Min. & Sci. Press, vol. 99, p. 423. $\frac{1}{2}$ column. I.
- STEAM SCRAPER FOR PLACER MINING.** By H. W. Turner. Min. & Sci. Press, vol. 97, p. 191. $\frac{3}{4}$ column. I.
- BUCKET SCRAPER FOR USE IN PLACER MINING.** Min. & Sci. Press, vol. 101, p. 43. 2 columns. I.
- See also **EXCAVATION OF EARTH, ROCK; ETC.**
- STACKER FOR HYDRAULICKING.** By S. S. Smith. Min. & Sci. Press, vol. 100, p. 290. 3 columns. I.
- See also **DREDGING FOR GOLD AND OTHER MATERIALS.**
- DIFFERENT METHODS OF ALLUVIAL MINING IN VICTORIA.** By S. Hunter. T. Au. I. M. E., vol. 8, pt. 2, p. 188. 2 pages.
- ALLUVIAL WORKINGS AT ADDISON'S FLAT, NEW ZEALAND.** By A. G. Macdonald. E. & M. J., vol. 87, p. 198. 4 columns. I.
- METHODS OF WORKING ALLUVIAL DEPOSITS OF VICTORIA.** T. I. M. & M., vol. 17, p. 224. 4 pages. I.

- HYDRAULIC MINING AS APPLIED TO WESTERN AUSTRALIA. By R. N. Wells. T. Au. I. M. E., vol. 8, pt. 1, p. 31. 9 pages.
- SOME NOTES ON HYDRAULICKING AND GROUND SLUICING IN NEW ZEALAND, AND COMPARISONS WITH THE DRIFT GRAVEL OF THE CORINNA DISTRICT IN TASMANIA. By E. M. Thornley. T. Au. I. M. E., vol. 4, p. 50. 6 pages.
- HYDRAULIC SLUICING IN AUSTRALIA. T. Au. I. M. E., vol. 12, p. 34. 14 pages.
- HYDRAULICKING IN CALIFORNIA. By H. P. Gordon. Min. & Sci. Press, vol. 100, p. 751. $3\frac{1}{2}$ columns. I.
- HYDRAULICKING IN TRINITY COUNTY, CALIFORNIA. Min. & Sci. Press, vol. 101, p. 143. 2 columns.
- CLEANING UP AN OLD MILL YARD: Hydraulicking a Mill Site for Gold in California. By W. H. Storms. E. & M. J., vol. 89, p. 646. 3 columns. I.
- MINING DIAMONDS AT BAHIA, BRAZIL. E. & M. J., vol. 87, p. 986. 3 columns. I.
- See also OCCURRENCE OF DIAMONDS and BRAZIL.
- HYDRAULICKING PLATINUM DEPOSITS IN BRITISH COLUMBIA. J. C. M. I., vol. 13, p. 313. 5 pages. I.
- HYDRAULIC MINING AT SAN ANTONIO, PERU. Min. & Sci. Press, vol. 97, p. 780. 4 columns. I.
- PHILIPPINE PLACER MINING. Min. & Sci. Press, vol. 99, p. 267. $\frac{3}{4}$ column.
- THE BRANDY CITY HYDRAULIC MINE. By G. F. Taylor. E. & M. J., vol. 89, p. 1152. 3 columns. I.
- METHOD OF WORKING LUMPKIN COUNTY PLACERS, GEORGIA. Min. Mag., vol. 10, p. 469.
- GOLD MINING BY THE HYDRAULIC PROCESS IN NORTH CAROLINA AND GEORGIA. By T. L. Clingman. Min. Mag., vol. 10, p. 27. 4 pages.
- PROSPECTING AND MINING GOLD PLACERS IN ALASKA. By J. P. Hutchins. U. S. G. S., Bull. 345, p. 54. 24 pages. 1907.
- See also PROSPECTING, ETC.
- HYDRAULIC MINING IN ALASKA. By T. A. Rickard. Min. Mag., London, vol. 1, p. 139. 6 columns. I.
- PLACER MINING IN ALASKA IN 1904. By A. H. Brooks. U. S. G. S., Bull. 259, p. 18. 13 pages.
- METHODS AND COSTS OF GRAVEL AND PLACER MINING IN ALASKA. By C. W. Purington. U. S. G. S., Bull. 263. 273 pages. I. 1905.
- NOME PLACER MINING. By T. M. Gibson. Min. & Sci. Press, vol. 101, p. 809. $3\frac{1}{2}$ columns.
- PLACER MINING IN THE YUKON-TANANA REGION, ALASKA. By C. E. Ellsworth. U. S. G. S., Bull. 442, p. 230. 16 pages. 1909.
- MINING IN THE FAIRHAVEN PRECINCT. By F. F. Henshaw. U. S. G. S., Bull. 379, p. 355. 15 pages. I. 1908.
- PLACER GOLD MINING IN INTERIOR ALASKA. E. & M. J., vol. 87, p. 591. 9 columns.
- PLACER MINING OPERATIONS IN ALASKA IN 1909. By A. H. Brooks. E. & M. J., vol. 90, p. 412. $8\frac{1}{4}$ columns. Map.
- MINING AND MINING METHODS OF THE YUKON. By A. A. Bare. J. C. M. I., vol. 11, p. 545. 24 pages. I.
- HYDRAULIC MINING IN COLOMBIA. Min. & Sci. Press, vol. 98, p. 220. $\frac{1}{2}$ column. I.
- THE CARIBOO CONSOLIDATED HYDRAULIC PLANT, BULLION, BRITISH COLUMBIA. By W. J. Dick. J. C. M. I., vol. 10, p. 418. 8 pages.
- HYDRAULIC MINING IN CARIBOO. By D. Waterman. Min. & Sci. Press, vol. 95, p. 302. 5 columns. I.
- TIN SLUICING IN TASMANIA. By E. Edwards. M. & M., vol. 31, p. 309. 12 columns. I.

- HYDRAULIC MINING FOR TIN IN THE MALAY STATES.** Min. & Sci. Press, vol. 98, p. 32. 7 columns. I.
- GROUND-SLUICING IN THE MALAY STATES.** Min. & Sci. Press, vol. 98, p. 34. 3 columns. I.
- See also **MALAYSIA AND OCCURRENCE OF TIN.**
- TIN PLACER MINING IN THE BOLIVIAN ANDES.** E. & M. J., vol. 90, p. 1054. $\frac{2}{3}$ column.
- HYDRAULIC MINING IN TIN MINES OF CAPE COLONY.** P. C. M. & M. Soc. S. A., vol. 8, p. 171. 8 columns. I.
- See also **COST OF PIPES AND PIPE LAYING.**
- See also **COST OF FLUME CONSTRUCTION AND COST OF HYDRAULIC MINING, also COST OF MINE AND MILL CONSTRUCTION.**
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- SPECIFICATIONS FOR A HYDRAULIC GOLD DREDGE.** T. A. I. M. E., vol. 40, p. 506. 10 pages.
- NEW MACHINERY FOR RIVER EXPLORATION: Dredging, Etc.** Min. Mag., vol. 4, p. 61. $7\frac{1}{2}$ pages. I.
- DREDGING FOR GOLD.** Min. Mag., London, vol. 2, p. 217. 7 columns. I.
- HYDRAULIC DREDGING FOR GOLD.** By H. G. Granger. Min. & Sci. Press, vol. 99, p. 35. $1\frac{1}{2}$ columns.
- BY-PRODUCTS OF GOLD DREDGING.** E. & M. J., vol. 86, p. 119. $\frac{1}{3}$ column.
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- HYDRAULIC DREDGING OR THE WORKING OF DEEP ALLUVIAL DEPOSITS BY ELEVATORS WITH CENTRIFUGAL PUMPS.** By A. S. Kenyon. T. A. I. M. E., vol. 5, p. 275. 12 pages. I.
- GOLD DREDGING AS AN INVESTMENT.** By A. C. Ludlum. E. & M. J., vol. 85, p. 315. $2\frac{1}{2}$ columns.
- PROSPECTING DREDGE.** E. & M. J., vol. 86, p. 705. $\frac{2}{3}$ column.
- FUTURE OF DREDGING.** By C. Janin. Min. & Sci. Press, vol. 101, p. 868. $6\frac{1}{2}$ columns.
- DREDGING AND SAMPLING OF PLACER GROUND.** By A. P. Rogers. E. & M. J., vol. 89, p. 561. 5 columns. I.
- See also **METHODS OF SAMPLING.**
- EXAMINATION OF GOLD DREDGING PROPERTIES.** By T. S. Ruh. E. & M. J., vol. 87, p. 893. 5 columns. I.
- See also **VALUE OF MINES, ETC.**
- FAILURES IN SPUDS FOR GOLD DREDGES.** By H. D. Smith. Min. & Sci. Press, vol. 98, p. 728. $2\frac{2}{3}$ columns. I.
- CLAY CUTOUT, ISABEL DREDGE.** By W. B. Winston. Min. & Sci. Press, vol. 101, p. 838. $3\frac{1}{3}$ columns. I.
- OVERFLOW FROM DREDGE PITS AT OROVILLE.** Min. & Sci. Press, vol. 98, p. 326. $1\frac{1}{4}$ columns.
- RESTORING DREDGED GROUND.** E. & M. J., vol. 87, p. 946. 4 columns. I.
- RESTORING DREDGED GROUND.** By A. S. Atkinson. M. & M., vol. 31, p. 422. $2\frac{1}{4}$ columns. I.

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DREDGING FROZEN GROUND IN KLONDIKE. E. & M. J., vol. 85, p. 512. 4½ columns.

DREDGING CONDITIONS ON THE SEWARD PENINSULA. By G. B. Massey. E. & M. J., vol. 90, p. 859. 20½ columns. I.

DREDGING NOME BEACH SANDS. M. & M., vol. 30, p. 494. 4 columns. I.

DREDGING ON THE SEWARD PENINSULA. By T. A. Rickard. Min. & Sci. Press, vol. 97, p. 734. 14 columns. I.

DREDGING IN THE YUKON. By T. A. Rickard. Min. & Sci. Press, vol. 97, p. 290, 5¾ columns, I.; p. 354, 6 columns, I.

PONY DREDGES IN ALASKA. By W. H. Washburn. Min. & Sci. Press, vol. 100, p. 352. 5 columns. I.

DREDGING AT NOME IN 1909. Min. & Sci. Press, vol. 100, p. 47. 6¾ columns. I.

HYDRAULIC DREDGING IN AUSTRALIA. T. Au. I. M. E., vol. 12, p. 58. 5 pages.

BUCKET DREDGING IN NEW ZEALAND. T. Au. I. M. E., vol. 12, p. 49. 8 pages.

GOLD DREDGING IN OTAGO, NEW ZEALAND. By F. T. Seelye. T. Au. I. M. E., vol. 9, p. 181. 14 pages. I.

THE GOLD DREDGING INDUSTRY IN NEW ZEALAND. By W. Wylie. T. Au. I. M. E., vol. 7, p. 102. 10 pages.

THE CAREER OF THE GOLD DREDGE IN NEW SOUTH WALES. By D. K. Blair. T. Au. I. M. E., vol. 10, p. 289. 19½ pages.

DREDGING INDUSTRY IN NEW ZEALAND. By A. C. Buckland. Min. & Sci. Press, vol. 98, p. 758. 1½ columns.

DREDGING AT BUTTE. By A. F. Bushnell. E. & M. J., vol. 87, p. 991. 3½ columns. I.

GOLD DREDGING PRACTICE IN CALIFORNIA. By Robt. Sibley. E. & M. J., vol. 85, p. 1083. 15¾ columns. I.

DREDGING AT OROVILLE. By D. Waterman. Min. & Sci. Press, vol. 98, p. 785. 7½ columns. I.

LESS KNOWN GOLD DREDGES IN CALIFORNIA. By W. M. Knox. Min. & Sci. Press, vol. 101, p. 16. 3 columns. I.

GOLD DREDGING ON THE CHOCO RIVER, REPUBLIC OF COLOMBIA, SOUTH AMERICA. By H. G. Granger. T. A. I. M. E., vol. 39, p. 392. 27 pages. I.

DREDGING CONDITIONS IN COLOMBIA. By A. P. Rogers. E. & M. J., vol. 87, p. 1003. 2 columns.

GOLD DREDGING GROUND IN THE UPPER AMAZON VALLEY. E. & M. J., vol. 87, p. 643. 2½ columns.

DREDGING AT BRECKENRIDGE, COLORADO. By A. H. Bradford and R. P. Curtis. Min. & Sci. Press, vol. 99, p. 361. 11 columns. I.

CONDITIONS OF GOLD DREDGING IN FRENCH GUIANA. By A. Bordeaux. E. & M. J., vol. 90, p. 562. 6½ columns. I.

DREDGING IN THE RIVERS OF FRENCH GUIANA. T. A. I. M. E., vol. 41, p. 583. 8 pages.

DREDGING POSSIBILITIES IN KOREA. By R. Y. Hanlon. Min. & Sci. Press, vol. 100, p. 831. 3½ columns. I.

GOLD DREDGING IN THE PHILIPPINES. E. & M. J., vol. 88, p. 974. 3 columns. I.

GOLD DREDGING AT PARACALE, PHILIPPINE ISLANDS. Min. & Sci. Press, vol. 100, p. 258. 3½ columns. Map.

GOLD DREDGING IN RUSSIA. By I. I. Rogovin. E. & M. J., vol. 87, p. 1050. 1½ columns.

DREDGING AT NEVANSK. By C. W. Purington. Min. Mag., London, vol. 2, p. 206. 4 columns. I.

DREDGING FOR PLATINUM IN THE URALS, RUSSIA. By L. Tovey. E. & M. J., vol. 86, p. 701. 15 columns. I.

GOLD DREDGING IN SIBERIA. By J. B. Landfield. Min. & Sci. Press, vol. 99, p. 423. $4\frac{1}{2}$ columns. I.

PRODUCTION OF URAL AND SIBERIAN DREDGES FOR 1909. Min. & Sci. Press, vol. 101, p. 764. $3\frac{1}{2}$ columns. Tables.

See also **COST OF DREDGING.**

Mining Débris: Damages and Litigation

A CALIFORNIA DÉBRIS DECISION. E. & M. J., vol. 85, p. 408. $1\frac{1}{2}$ columns.

DÉBRIS CONTROL IN THE SACRAMENTO VALLEY. By A. D. Foote. Min. & Sci. Press, vol. 99, p. 688. $2\frac{1}{2}$ columns. I.

ANTI-DÉBRIS ACTION IN CALIFORNIA. E. & M. J., vol. 86, p. 181. $\frac{3}{4}$ column.

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Reworking Abandoned Mines

REOPENING THE MEXICAN MINE, COMSTOCK LODGE. By W. Symmes. Min. & Sci. Press, vol. 100, p. 419. $8\frac{1}{2}$ columns. I.

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Waste in Mining

WASTE IN MINING. E. & M. J., vol. 86, p. 461. $\frac{3}{4}$ column.

WASTAGE OF THE PRECIOUS METALS. By A. B. Paul. Min. & Sci. Press, vol. 22, p. 339, 2 columns; p. 355, $1\frac{1}{2}$ columns; p. 371, $1\frac{1}{2}$ columns.

PLATINUM AND GOLD LOSSES IN DREDGING. By W. B. Winston. Min. & Sci. Press, vol. 99, p. 234. $1\frac{1}{4}$ columns.

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MAXIMUM RECOVERY OF COAL, GEORGES CREEK REGION. By H. V.

Hesse. M. & M., vol. 29, p. 373. $11\frac{1}{2}$ columns. I.

MINING METHODS FOR MAXIMUM RECOVERY OF COAL. By H. V. Hesse. E. & M. J., vol. 87, p. 303. $18\frac{1}{2}$ columns. I.

LOSS OF COAL IN MININO FLAT SEAMS. E. & M. J., vol. 86, p. 138. 4 columns.

WASTE OF ANTHRACITE MINING: One-third of Production Sent to Culm Bank. Coal Mining Supplement, E. & M. J., vol. 88, p. 7. $1\frac{1}{2}$ columns.

MINING WASTES IN ILLINOIS. T. A. I. M. E., vol. 40, p. 31. 12 pages. D.

WASTE IN THE PITTSBURG DISTRICT: Fifty Percent Coal Lost. E. & M. J., vol. 89, p. 476. $\frac{3}{4}$ column.

EARLY WASTE OF PETROLEUM. By X. W. Putnam. M. & M., vol. 30, p. 491. 3 columns. I.

LOSS IN SLUICING IN TIN MINING, CAPE COLONY. P. C. M. & M. Soc. S. A., vol. 8, p. 175. $\frac{1}{2}$ column.

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Difficulties Encountered in Mining: High Temperatures, Etc., Increase of Temperature with Depth

TEMPERATURE IN THE COMSTOCK LODGE, NEVADA. T. A. I. M. E., vol. 41, p. 6. 7 pages.

INCREASE OF TEMPERATURE WITH DEPTH ON THE TRANSVAAL. Min. & Sci. Press, vol. 101, p. 332. $\frac{1}{2}$ column.

ON MEASUREMENTS OF THE INCREASE OF TEMPERATURE IN BORE-HOLES: With the Depth, the Technics, and Practical Importance of the Same for Geological Prognosis, with Reference to New Measurements in Mexico, Borneo, and in Central Europe. By J. Koenigsberger and M. Mühlberg. T. I. M. E., vol. 39, p. 617. 29 pages.

ROCK TEMPERATURES AND DEEP MINING. E. & M. J., vol. 88, p. 32. 1 column.

TEMPERATURE AT GREAT DEPTH IN COAL MINES. P. C. M. & M. Soc. S. A., vol. 10, p. 118. 1 column.

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RISE OF EARTH TEMPERATURE. E. & M. J., vol. 85, p. 1093. $\frac{1}{2}$ column.

TEMPERATURE IN DEEP COLLIERY WORKINGS. P. C. M. & M. Soc. S. A., vol. 8, p. 225. 1 column.

RATE OF RISE OF TEMPERATURE WITH DEPTH. P. C. M. & M. Soc. S. A., vol. 8, p. 226. Note.

EXPERIMENTS ON THE TEMPERATURE OF THE EARTH AT GREAT DEPTHS. By G. W. Alexander. Min. Mag., vol. 9, p. 523. 3 pages.

NOTES ON SOME OBSERVATIONS OF TEMPERATURE, ETC., IN THE DEEP MINES OF BENDIGO. By J. Stirling. T. Au. I. M. E., vol. 4, p. 94. 16 pages. I.

ADDENDUM TO PAPER ON EARTH TEMPERATURES ON WITWATERSRAND GOLD FIELDS. By H. F. Marriott. T. I. M. & M., vol. 17, p. 428. 1 page.

DRIFTING THROUGH RED-HOT ROCK, HOMESTAKE MINE. E. & M. J., vol. 85, p. 636. 1 column.

DRILLING IN THE HOT TIME LATERAL OF THE NEWHOUSE TUNNEL. E. & M. J., vol. 86, p. 757. 2 columns. I.

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PREVENTING CRUSH AND CREEP IN THE NORTHUMBERLAND, ENGLAND. E. & M. J., vol. 85, p. 411. 1 column.

SQUEEZES IN MINES AND THEIR CAUSES. By R. D. N. Hill. M. & M., vol. 30, p. 286. $2\frac{1}{2}$ columns. I.

RECLAIMING CAVED GROUND AFTER A SQUEEZE. By J. J. Rutledge. E. & M. J., vol. 86, p. 411. 4 columns. I.

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PSYCHOLOGY OF MINING BOOMS. By C. Sachs. Min. & Sci. Press, vol. 96, p. 156. 4 columns.

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THE ADVANTAGES OF MACHINE MINING. By F. W. Parsons. E. & M. J., vol. 89, p. 622. 8½ columns. I.

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- COLLAR AT NO. 1 ALLAN SHAFT, STELLARTON, NOVA SCOTIA. By H. E. Coll. J. M. Soc. N. S., vol. 13, p. 69. 6 pages.
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- SQUARE-SETTING IN THE CLIFTON-MORENCI MINES. Min. & Sci. Press, vol. 101, p. 832. 2½ columns. I.
- SQUARE-SET MINING OR A MODIFICATION OF IT. By C. T. Rice. Min. & Sci. Press, vol. 95, p. 365. 5 columns. I.
- SQUARE-SET MINING IN THE TAMARACK MINES. Min. & Sci. Press, vol. 96, p. 848. Note.
- SQUARE-SET MINING AT CANANEA. E. & M. J., vol. 90, p. 915. 1 column.
- SQUARE-SET TIMBERING AT THE MOUNT MORGAN MINE. E. & M. J., vol. 87, p. 749. 1 column. I.
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- SQUARE-SETS AT BISBEE, ARIZONA. Min. & Sci. Press, vol. 99, p. 360. ½ column.
- THE CANANEA METHOD OF FRAMING SQUARE-SETS. E. & M. J., vol. 90, p. 916. ½ column. I.
- SQUARE-SETS USED IN THE ESPERANZA MINE, MEXICO. Min. & Sci. Press, vol. 99, p. 847. ½ column.
- SQUARE-SETS IN THE CENTRE STAR MINES, BRITISH COLUMBIA. E. & M. J., vol. 89, p. 18. 1½ columns. I.
- METHOD OF SQUARE-SET STOPING AT BISBEE. By M. J. Elsing. E. & M. J., vol. 89, p. 707. 7 columns. I.

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Preservation of Mine Timber and Structural Steel

WOOD PRESERVATION FROM AN ENGINEERING STANDPOINT. By C. T. Barnum. J. W. Soc. E., vol. 15, p. 346. 20 pages. I.

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OPEN-TANK METHOD OF PRESERVING TIMBER. By H. F. Weiss. E. & M. J., vol. 87, p. 840. 3½ columns.

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THE PRESERVATIVE TREATMENT OF WOODS. P. C. M. & M. Soc. S. A., vol. 5, p. 68. ¼ column.

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THE PROTECTION OF MINE TIMBERS FROM FUNGUS. By J. Macoun. J. C. M. I., vol. 13, p. 467. 3 pages.

THE PRESERVATION OF STRUCTURAL TIMBERS FROM DECAY. By C. P. Winslow. P. E. Soc. W. Pa., vol. 26, p. 427. 58 pages. I.

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RUSTING OF IRON. By F. H. Mason. Min. & Sci. Press, vol. 97, p. 329. 2½ columns.

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PREVENTION OF RUSTING. Min. & Sci. Press, vol. 96, p. 704. ⅔ column.

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POWER: STEAM, WATER, ELECTRICITY AND GAS

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POWER IN ITS RELATION TO THE INDUSTRIES. By C. E. Lucke. Sch. Mines Quart., vol. 31, p. 246. 21 pages. I.

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- METHODS OF STUDYING THE HEAT-ABSORBING PROPERTIES OF STEAM BOILERS.** By L. R. Stowe. J. W. Soc. E., vol. 13, p. 715. 31½ pages. D.
- SOME RESULTS DUE TO IMPROVEMENT IN BOILER AND FURNACE DESIGN.** By A. Bement. J. W. Soc. E., vol. 13, p. 209. 74 pages. I.
- THE NATURE OF TRUE BOILER EFFICIENCY.** By W. T. Ray and H. Kreisinger. J. W. Soc. E., vol. 12, p. 661. 40 pages. I.
- A NEW TYPE OF WATER TUBE BOILER.** By T. H. McGraw, Jr. P. E. Soc. W. Pa., vol. 25, p. 491. 13 pages. I.
- THE CARE OF SMALL STEAM BOILERS.** By W. O. Rogers. E. & M. J., vol. 88, p. 1217. 7½ columns. I.
- SIGNIFICANCE OF DRAFTS IN STEAM-BOILER PRACTICE.** By W. T. Ray and H. Kreisinger. U. S. G. S., Bull. 367. 61 pages. 1909.
- CONDENSATION IN STEAM PIPES.** E. & M. J., vol. 88, p. 512. 1 column. D.
- A REVIEW OF THE UNITED STATES GEOLOGICAL SURVEY FUEL TESTS UNDER STEAM BOILERS.** By L. P. Breckenridge. J. W. Soc. E., vol. 12, p. 285. 64 pages. I.
- THE BURNING OF COAL WITHOUT SMOKE IN BOILER PLANTS.** By D. T. Randall. U. S. G. S., Bull. 334. 26 pages. 1908.
- USE OF LOW-GRADE FUEL UNDER BOILERS.** By J. Preston. J. M. Soc. N. S., vol. 15, p. 103. 5 pages.
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- GAS AND GASOLINE ENGINES AS APPLIED TO SMALL WATER WORKS PLANTS.** By C. O. Rogers. P. E. Soc. W. Pa., vol. 14, p. 85. 16 pages. I.
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- TREATMENT OF BOILER WATER.** By A. L. McCallum. J. M. Soc. N. S., vol. 15, p. 79. 3 pages.
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By E. P. Kennedy. Min. & Sci.
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THE MECHANICS OF ORE CRUSHING. By C. De Kalb. Min. & Sci. Press, vol. 96, p. 155. 2 $\frac{1}{4}$ columns. I.

CRUSHING BY STAGES. By A. Del Mar. Min. & Sci. Press, vol. 101, p. 614. 2 $\frac{1}{2}$ columns.

STAGE CRUSHING. By H. W. Harding. E. & M. J., vol. 89, p. 221. 3 columns.

NOVEL HAND CRUSHING DEVICE. By H. L. Jene. E. & M. J., vol. 87, p. 788. 1 $\frac{1}{2}$ columns. I.

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ECONOMY OF POWER IN CRUSHING ORE. By E. A. Hersam. Min. & Sci. Press, vol. 95, p. 621. 12 columns.

THE CALCULATION OF THE COMPARATIVE EFFICIENCIES OF CRUSHING AND GRINDING MACHINES. By R. W. Chapman. T. Au. I. M. E., vol. 13, p. 154. 4 pages. I.

ON TESTING REDUCING MACHINERY. By F. D. Power. T. Au. I. M. E., vol. 2, p. 81. 3 $\frac{1}{2}$ pages.

SOME NOTES ON DRY CRUSHING. By N. F. White. T. Au. I. M. E., vol. 6, p. 37. 24 pages. I.

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PRACTICAL NOTES ON DRY CRUSHING MILLS IN WESTERN AUSTRALIA. P. C. M. & M. Soc. S. A., vol. 10, p. 222. 5 columns.

DRY CRUSHING AT THE CONSOLIDATED MERCUR MINES. E. & M. J., vol. 89, p. 1277. 1 column.

See also FINE CRUSHING BY MILLS.

WESTRALIAN WET CRUSHING PLANTS, WITH SOME NOTES ON LABOUR EFFICIENCY. By G. W. Williams. P. C. M. & M. Soc. S. A., vol. 8, p. 232, 14 $\frac{1}{2}$ columns; p. 277, 1 $\frac{1}{2}$ column; p. 345, 1 $\frac{1}{4}$ columns; p. 383, 1 $\frac{1}{4}$ columns; vol. 9, p. 24, 1 column; p. 270, 4 columns.

REDUCTION OF ORES IN THE BARBERTON GOLDFIELD, SOUTH AFRICA. P. C. M. & M. Soc. S. A., vol. 10, p. 130. 2 columns.

NATOMAS 1500-TON PLANT FOR CRUSHING DREDGE TAILING. By G. Bowers. Min. & Sci. Press, vol. 99, p. 609. 8½ columns. I.

See also DISPOSAL OF WASTE.

"BATTLE-BOX" FOR CLEANING FINE BARITE. T. A. I. M. E., vol. 40, pp. 731 and 732. I.

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NOTES ON FEEDERS WITH A DESCRIPTION OF A NEW DRIVING DEVICE. By D. J. Pepler. P. C. M. & M. Soc. S. A., vol. 8, p. 42, 3 columns, I.; p. 85, 1½ columns; p. 146, 3½ columns, I.; p. 182, 2½ columns.

THE HUNTER ORE FEEDER. P. C. M. & M. Soc. S. A., vol. 5, p. 9. 1½ columns. I.

AN IMPROVED BUFFER FOR ORE FEEDERS: Stamp Milling. By T. White. T. Au. I. M. E., vol. 5, p. 118. 1½ pages. I.

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Crushers: Construction and Operation

COMPARISON OF GYRATORY AND JAW CRUSHERS. By H. L. Wollenberg. E. & M. J., vol. 90, p. 509. 9½ columns. D.

CAPACITY OF CRUSHERS. Min. Mag., London, vol. 2, p. 45. 3 columns.

STONE BREAKERS FOR DRY CRUSHING. T. Au. I. M. E., vol. 6, p. 47. 3 pages.

THE EFFICIENCIES OF CRUSHERS. By R. W. Chapman. M. & M., vol. 30, p. 413. 2 columns. D.

A NEW COAL BREAKER (REDUCER). M. & M., vol. 29, p. 252. ¾ column. I.

COARSE CRUSHING AT THE BOSTON CONSOLIDATED MILL AT GARFIELD, UTAH. By L. S. Austin. Min. & Sci. Press, vol. 100, p. 123. 3 columns. I.

CRUSHING IN THE ELY, NEVADA, MILL. M. & M., vol. 29, p. 169. 1 column.

THE NEW COCHRAN CRUSHER. By J. T. Barkelew. E. & M. J., vol. 88, p. 264. 4 columns. I.

CRUSHING MACHINES FOR CYANIDE PLANTS. By M. R. Lamb. T. A. I. M. E., vol. 41, p. 672, 4½ pages; p. 913, 1 page.

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- THE DEVELOPMENT OF HEAVY GRAVITY STAMPS.** By W. A. Caldecott. P. C. M. & M. Soc. S. A., vol. 10, p. 108, 13 columns, I.; p. 178, 2 columns; p. 215, 13 columns; p. 331, 3 columns; p. 352, $29\frac{3}{4}$ columns, I.; p. 241, 23 columns, I.
- EVOLUTION OF THE GRAVITY STAMP MILL.** By A. Del Mar. E. & M. J., vol. 87, p. 890. 2 columns.
- NOTES ON THE CONSTRUCTION AND OPERATION OF STAMP MILLS.** By G. H. Fison. E. & M. J., vol. 88, p. 1131. $3\frac{1}{2}$ columns.
- CONSTRUCTION AND OPERATION OF THE STAMP MILL.** P. C. M. & M. Soc. S. A., vol. 10, p. 261. 4 columns.
- PRACTICAL WORKING OF THE STAMP MILL.** By A. Del Mar. E. & M. J., vol. 88, p. 548. 4 columns.
- LIMITATIONS OF ONE AND FIVE STAMP BATTERIES.** By A. Del Mar. Min. & Sci. Press, vol. 100, p. 640. $3\frac{3}{4}$ columns.
- POWER REQUIRED FOR STAMPS.** Min. & Sci. Press, vol. 100, p. 222. $\frac{1}{2}$ column. D.
- POSITION OF DRIVING POWER FOR STAMP MILLS.** By A. Del Mar. E. & M. J., vol. 89, p. 7. $\frac{1}{2}$ column. I.
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- THE HOLMAN AIR-CUSHION STAMP.** By E. Walker. E. & M. J., vol. 86, p. 213. $2\frac{1}{2}$ columns. I.
- STAMPING: Reduction of Ores in Hungary.** Min. Mag., vol. 3, p. 262. $1\frac{1}{2}$ pages.
- A MAKE-SHIFT STAMP MILL.** Min. & Sci. Press, vol. 95, p. 619. $\frac{1}{4}$ column. I.
- BATTERY POSTS OF REINFORCED CONCRETE.** By A. Del Mar. E. & M. J., vol. 88, p. 598. 2 columns. I.
- CONCRETE BATTERY POSTS.** E. & M. J., vol. 88, p. 598. 2 columns. I.
- See also **USE OF CONCRETE IN MINES.**
- NOTE ON A MODIFICATION OF THE NORMAL TYPE OF BATTERY FRAME.** By G. W. Williams. P. C. M. & M. Soc. S. A., vol. 8, p. 198. 1 column. I.
- See also **FOUNDATIONS FOR MILL BUILDINGS.**
- CUSHIONING VIBRATIONS OF CAM-SHAFTS.** By A. Del Mar. Min. & Sci. Press, vol. 97, p. 877. $1\frac{1}{4}$ columns. I.
- THE PROPER DESIGN OF CAMS.** By M. R. Lamb. E. & M. J., vol. 88, p. 66. $4\frac{1}{2}$ columns. I.
- REPAIRING A MORTAR BOX PILE.** By A. Richardson. P. C. M. & M. Soc. S. A., vol. 9, p. 24. 4 columns. I.
- SOME ACCESSORY STAMP MILL APPLICATIONS.** By S. O. Smart. P. C. M. & M. Soc. S. A., vol. 7, p. 133, 3 columns, I.; p. 183, 1 column; p. 269, 1 column; p. 292, 2 columns.
- LOW MORTARS AND HIGH HEADS.** By M. P. Boss. Min. & Sci. Press, vol. 101, p. 866. $2\frac{1}{2}$ columns. I.
- EFFECT OF DISCHARGE LEVEL AND WATER SUPPLY ON STAMP CAPACITY.** E. & M. J., vol. 86, p. 386. 1 column.
- STAMP DROP SEQUENCE.** E. & M. J., vol. 89, p. 204. $2\frac{1}{2}$ columns.
- STAMP DROP SEQUENCE.** E. & M. J., vol. 89, p. 597. 1 column.

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- STAMP DROP SEQUENCE.** By H. S. Munroe. E. & M. J., vol. 90, p. 949. 1 column. D.
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- STAMP MILL PRACTICE AT THE SIMMER DEEP AND JUPITER REDUCTION WORKS.** Min. & Sci. Press, vol. 99, p. 396. 6½ columns. I.
- STAMP MILL PRACTICE ON THE MOTHER LODE.** By A. Chalmers. Min. & Sci. Press, vol. 97, p. 785. 1½ columns.
- A FEW NOTES ON STAMP MILLING.** By W. H. Jane. P. C. M. & M. Soc. S. A., vol. 8, p. 290, 2 columns; vol. 9, p. 21, 1½ columns; p. 46, 4 columns.
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- See also **METALLURGY OF GOLD AND SILVER, CYANIDING GOLD, AMALGAMATION OF GOLD AND SILVER**, first volume of INDEX, COST OF MINE AND MILL CONSTRUCTION, and COST OF REDUCTION.
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- CRUSHING EFFICIENCY OF FINE GRINDING MACHINES.** By H. Stadler. Min. & Sci. Press, vol. 100, p. 900. 1½ columns.
- GRINDING TESTS AT PACHUCA.** By V. B. Sherrod. Min. & Sci. Press, vol. 100, p. 357. 6 columns. I.
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MINE SAMPLING DEVICES. By H. E. Hooper. T. I. M. & M., vol. 18, p. 66. 2 pages. I.

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HAULTAIN SAMPLER FOR WET SANDS IN THE CŒUR D'ALENE DISTRICT. E. & M. J., vol. 89, p. 875. 2 columns. I.

A BATTERY FEED SAMPLER. By J. H. Oates. E. & M. J., vol. 89, p. 1005. 1 column. I.

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IMPROVED SANDS AND SLIMES SAMPLERS. By H. Leupold. P. C. M. & M. Soc. S. A., vol. 5, p. 122. 4 columns. I.

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A SAND TANK SAMPLER. By H. W. MacFarren. Min. & Sci. Press, vol. 97, p. 636. $\frac{1}{2}$ column. I.

See also CYANIDING GOLD AND SILVER ORES and COST OF SAMPLING.

Sampling Coal and Ores

COAL SAMPLING. By J. E. Woodman. J. M. Soc. N. S., vol. 12, p. 105. 7 pages.

METHODS OF SAMPLING ILLINOIS COALS. T. A. I. M. E., vol. 40, p. 17. 6 pages. I.

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SAMPLES FROM MINE CARS, TIPPLES AND LOADING RAILROAD CARS. M. & M., vol. 31, p. 91. 3 columns. I.

SAMPLING COAL AND COKE. By E. G. Bailey. M. & M., vol. 31, p. 190, $5\frac{1}{2}$ columns, I.; p. 209, 2 columns.

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SAMPLING OF ORE. By D. W. Brunton. Min. & Sci. Press, vol. 97, p. 665. 2 columns.

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THE ELEMENT OF CHANCE IN THE SAMPLING OF ORES. By L. T. Wright. Min. Mag., London, vol. 3, p. 353. 12 columns.

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SAMPLING AND BUYING ORE IN THE JOPLIN DISTRICT. By E. W. Buskett. E. & M. J., vol. 86, p. 190. 3 columns.

- SAMPLING AND ASSAYING THE COPPER ORES OF THE ELY DISTRICT.** By R. Marsh. Sch. Mines Quart., vol. 30, p. 91. 6½ pages.
- SAMPLING ORES FROM THE COBALT DISTRICT.** E. & M. J., vol. 87, p. 1283. 1¼ columns.
- SAMPLING ORES ON THE WEST COAST OF TASMANIA.** By F. D. Power. T. Au. I. M. E., vol. 3, p. 237. 6 pages.
- THE SAMPLING OF SILVER-COBALT ORES AT COPPER CLIFF, ONTARIO.** By A. A. Cole. J. C. M. I., vol. 11, p. 287. 6 pages. I.
- ORE SAMPLING BY MACHINERY.** By J. A. Church. E. & M. J., vol. 86, p. 113. 7½ columns.
- SAMPLING OF COBALT-SILVER ORES.** E. & M. J., vol. 90, p. 809. ¾ column.
- SAMPLING ORES AT THE AUBURN MILL, NEVADA.** Min. & Sci. Press, vol. 22, p. 248. ½ column.
- See also **METHODS OF SAMPLING AND APPARATUS** and **MINE SAMPLING.**
- See also **DECOMPOSITION OF COAL** and **COST OF SAMPLING.**
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- SAMPLING LOW-GRADE AND IRREGULAR OREBODIES.** E. & M. J., vol. 90, p. 750. 1¼ columns.
- See also **METHODS OF SAMPLING AND APPARATUS, MINE SAMPLING, SAMPLING COAL AND ORES,** and first volume of **INDEX.**
- Practice in Sampling Minerals, Gravels, Etc.**
- SAMPLING PLACER GROUND.** E. & M. J., vol. 89, p. 561. 5 columns. I.
- SAMPLING MINE DUMPS.** By S. L. Rawlins. Min. & Sci. Press, vol. 97, p. 120. 1¼ columns.
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- SAMPLING OF MINE DUMPS.** By H. S. Munroe. Min. & Sci. Press, vol. 96, p. 711. 2 columns. I.
- CHURN DRILL GRAVEL SAMPLING.** By J. P. Keene. Min. & Sci. Press, vol. 99, p. 289. 2½ columns.
- CHURN DRILL SAMPLING.** By W. E. Thorne. Min. & Sci. Press, vol. 98, p. 358. 3½ columns. I.
- SAMPLING BY BORINGS FROM ROCK DRILLS.** E. & M. J., vol. 89, p. 710. 1 column.
- See also **PROSPECT DRILLING, CHURN DRILLS AND DRILLING, and MACHINE OR POWER DRILLS.**
- SAMPLING COPPER ANODES AT ANACONDA.** By W. Wraith. E. & M. J., vol. 89, p. 666. 4 columns. I.
- INFLUENCE OF NUMBER OF TEMPLET HOLES IN SAMPLING COPPER.** By D. M. Liddell. E. & M. J., vol. 90, p. 953. 2 columns. I.
- TOP AND BOTTOM DRILLING IN PIG COPPER.** By D. M. Liddell. E. & M. J., vol. 90, p. 897. 2 columns.
- SAMPLING ANODE-COPPER, WITH SPECIAL REFERENCE TO SILVER-CONTENT.** By W. Wraith. T. A. I. M. E., vol. 41, p. 318. 6 pages. I.
- SAMPLING LEAD CONCENTRATES.** E. & M. J., vol. 89, p. 1216. ½ column. I.
- SAMPLING AND ASSAYING SPELTER.** By E. W. Buskett. E. & M. J., vol. 85, p. 812. 2½ columns.
- SAMPLING THE PRODUCTS OF CONCENTRATING AND SLIMING TABLES.** P. C. M. & M. Soc. S. A., vol. 6, p. 175. 1½ columns.
- See also **CONCENTRATORS: TABLES, BUDDLES, ETC.**
- THE GOLDFIELD CONSOLIDATED SAMPLING MILL.** By J. A. Church. E. & M. J., vol. 87, p. 311. 3¼ columns. I.

SIZING OF MINERAL

Screens, Theory of Sizing, Etc.

SCREEN ASSAY VALUE. P. C. M. & M. Soc. S. A., vol. 7, p. 362. 1 column.

THE SCREEN ASSAY ON THE MEYER AND CHARLTON G. M. UNDER "THE NEW METALLURGY." By C. Toombs. P. C. M. & M. Soc. S. A., vol. 7, p. 277, $4\frac{1}{2}$ columns; p. 331, 2 columns; p. 360, $4\frac{1}{2}$ columns; p. 411, $6\frac{1}{2}$ columns; vol. 8, p. 44, $3\frac{1}{4}$ columns.

SCREEN ANALYSIS AND GRINDING EFFICIENCY. By A. Yates. Min. & Sci. Press, vol. 98, p. 624. 2 columns.

THE STANDARDIZATION OF BATTERY SCREENING. P. C. M. & M. Soc. S. A., vol. 7, p. 47. $2\frac{1}{2}$ columns.

THE STANDARDISATION OF SCREENS. P. C. M. & M. Soc. S. A., vol. 6, p. 115, 6 columns; p. 167, 2 columns.

REPORT OF SUB-COMMITTEE ON THE STANDARDIZATION OF BATTERY SCREENS. P. C. M. & M. Soc. S. A., vol. 6, p. 393. 24 columns. Tables.

CLOSE SIZING OF DRY FINELY CRUSHED ORES. By E. G. Steele. E. & M. J., vol. 87, p. 493. $7\frac{1}{2}$ columns. I.

SCREENING AT THE UTAH COPPER MILL. By H. B. Lowden. E. & M. J., vol. 87, p. 992. $\frac{3}{4}$ column.

SCREEN FOR SEPARATING WOOD PULP FROM ORE PULP, BUNKER HILL MILL. Min. Mag., London, vol. 2, p. 445. Note. I.

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Kinds of Screens and Methods of Operation

LABORATORY SCREENS. P. C. M. & M. Soc. S. A., vol. 10, p. 73. 2 columns.

A STANDARD SERIES OF SCREENS FOR LABORATORY TESTING. By T. J. Hoover. T. I. M. & M., vol. 19, p. 486. 49 pages.

A STANDARD SERIES OF SCREENS FOR LABORATORY TESTING. By T. J. Hoover. E. & M. J., vol. 90, p. 27. 3 columns. Table.

See also SCREENS and THEORY OF SIZING.

TROMMELS USED IN THE CŒUR D'ALENE MILLS. E. & M. J., vol. 89, p. 25. 8 columns. I.

GYRATORY SCREENS. E. & M. J., vol. 87, p. 494. 1 column.

THE "VIBRAONE" SEPARATOR. E. & M. J., vol. 85, p. 902. 1 column. I.

THE CALLOW SCREEN. P. C. M. & M. Soc. S. A., vol. 9, p. 313. 2 columns.

THE FRANZ SCREEN. M. & M., vol. 31, p. 126. $\frac{3}{4}$ column. I.

THE BUNKER HILL SCREEN: A New Form of Revolving Screen. Min. Mag., London, vol. 3, p. 49. $1\frac{1}{2}$ columns. I.

THE KEEDY SIZER FOR CLASSIFYING COMPLEX ORES. By C. F. Dietz and D. V. Keedy. E. & M. J., vol. 89, p. 322. 12 columns. I.

See also CLASSIFIERS and CLASSIFICATION.

UNDERGROUND GRIZZLIES. E. & M. J., vol. 88, p. 1279. $2\frac{1}{4}$ columns. I.

SCREENING OF ORES IN SARDINIA. T. A. I. M. E., vol. 39, p. 73. $3\frac{1}{2}$ pages. I.

CLAY SCREENS VS. DRYING ORES. By H. W. Fox. M. & M., vol. 30, p. 615. 3 columns. I.

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SIGNALING IN MINES**Signal Codes for Mines**

MINE SIGNALS. E. & M. J., vol. 85, p. 151. 1 column.

MINE SIGNALS FOR VARIOUS STATES. E. & M. J., vol. 86, p. 1088, 1 column; p. 1091, Note; p. 1092, $\frac{3}{4}$ column; p. 1093, Note.

CODE OF MINE SIGNALS: The Cleveland Cliffs Iron Company. By O. D. McClure. T. L. S. M. I., vol. 14, p. 147. 9 pages.

SIGNALS IN QUINCY MINE, MICHIGAN. J. C. M. I., vol. 10, p. 414. $\frac{1}{2}$ page.

MINE SIGNALS IN CALIFORNIA. Min. & Sci. Press, vol. 98, p. 702. $1\frac{1}{4}$ columns.

BELL SIGNALS IN LAKE SUPERIOR DISTRICT. By W. L. Fleming. E. & M. J., vol. 89, p. 1263. $1\frac{1}{2}$ columns.

Methods of Signaling

A MINE SIGNAL SYSTEM: Use of Semaphores. Min. & Sci. Press, vol. 96, p. 106. $1\frac{1}{4}$ columns.

AUTOMATIC SIGNAL RECORDER FOR MINES. M. & M., vol. 29, p. 351. $\frac{1}{2}$ column.

A NOVEL SYSTEM OF SIGNALING. By A. Gradenwitz. E. & M. J., vol. 89, p. 976. $3\frac{3}{4}$ columns. I.

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Compressed Air, Electricity, Telephones, Etc.

ELECTRIC SIGNAL SYSTEM. Min. & Sci. Press, vol. 96, p. 460. $\frac{1}{2}$ column. I.

PULL SWITCHES FOR ELECTRIC MINE SIGNALS. E. & M. J., vol. 86, p. 775. 2 columns.

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ELECTRIC SIGNALS IN SHAFTS. By W. E. Wainwright. Min. & Sci. Press, vol. 100, p. 428. $2\frac{1}{2}$ columns. I.

ELECTRIC SIGNAL TO SHAFT BOTTOM, ENGINE, AND WEIGH ROOM. By M. M. Haley. M. & M., vol. 31, p. 353. $\frac{3}{4}$ column.

TELEPHONES FOR MINE USE. M. & M., vol. 29, p. 281. $2\frac{1}{2}$ columns. I.

A PORTABLE TELEPHONE EQUIPMENT. By H. M. Payne. E. & M. J., vol. 89, p. 332. 1 column.

THE MINE TELEPHONE AND ITS ADVANTAGES. E. & M. J., vol. 86, p. 722. 4 columns. I.

MINE SIGNALING BY COMPRESSED AIR. M. & M., vol. 29, p. 276. $1\frac{1}{2}$ columns. I.

MINE SIGNALS BY COMPRESSED AIR. E. & M. J., vol. 86, p. 857. 3 columns. I.

BELL-CRANK LEVER SYSTEM OF SIGNALING IN RAND MINES. E. & M. J., vol. 85, p. 393. Note.

See also METHODS OF SIGNALING and COST OF SIGNALING.

SURVEYING

Methods of Surveying

ON MINING SURVEYS. By A. Beau-lands. Min. Mag., vol. 9, p. 337. 3 pages.

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ACCURACY IN SURVEYING. By L. Fraser. Min. & Sci. Press, vol. 99, p. 332. $1\frac{1}{2}$ columns. D.

METHOD OF DETERMINING THE MERIDIAN FROM A CIRCUMPOLAR STAR AT ANY HOUR. By E. R. Rice. T. A. I. M. E., vol. 41, p. 823. $10\frac{1}{2}$ pages. I.

DETERMINATION OF MERIDIAN. M. & M., vol. 31, p. 682. 1 column.

DETERMINING THE TRUE MERIDIAN. By A. W. Warwick. Min. & Sci. Press, vol. 97, p. 531. $7\frac{1}{2}$ columns.

DETERMINATION OF THE MERIDIAN. By C. E. Rowe. M. & M., vol. 30, p. 488. $5\frac{1}{2}$ columns. I.

DETERMINATION OF LATITUDE. By C. E. Rowe. M. & M., vol. 31, p. 119. $2\frac{1}{2}$ columns. I.

DETERMINATION OF THE MERIDIAN. By J. Underhill. M. & M., vol. 30, p. 660, $2\frac{2}{3}$ columns, I.; p. 661, 1 column, I.

DETERMINATION OF THE MERIDIAN. By F. A. Dalburg. M. & M., vol. 30, p. 668. 3 columns.

SEPARATE LEAF SYSTEM FOR RECORDING SURVEY NOTES. By L. Fraser. E. & M. J., vol. 88, p. 1268. 5 columns. D.

SURVEYING THE PUBLIC LAND OF THE UNITED STATES. By H. W. MacFarren. Min. & Sci. Press, vol. 100, p. 189. 8 columns. D.

PLOTTING COORDINATE SURVEYS. By J. J. Bristol. Min. & Sci. Press, vol. 100, p. 487, 8 columns, I.; p. 524, $7\frac{1}{4}$ columns, I.

See also SURVEYING INSTRUMENTS and SURFACE SURVEYS.

Surveying Instruments

A FEW OBSERVATIONS ON MINE SURVEYING AND SURVEYING INSTRUMENTS. By R. Provis. T. A. I. M. E., vol. 3, p. 171. 12 pages.

DEFLECTING ANGLES WITH A 30-FOOT TAPE. By L. Fraser. Min. & Sci. Press, vol. 99, p. 470. 1 column. I.

EFFECT OF THE INCLINATION OF THE STADIA ROD UPON STADIA DISTANCES. By B. Levitt. Sch. Mines Quart., vol. 31, p. 26. 19 pages. D.

NEED OF INSTRUMENTAL SURVEYING IN PRACTICAL SURVEYING. By B. S. Lyman. T. A. I. M. E., vol. 40, p. 636. 8 pages. I.

THE VERSCHOYLE POCKET TRANSIT. By W. D. Verschoyle. T. A. I. M. E., vol. 38, p. 398. $4\frac{1}{2}$ pages. I.

THE BACK-SIGHT LAMP. By Paul A. Gow. E. & M. J., vol. 90, p. 1097. $1\frac{1}{4}$ columns. I.

A NOVEL STADIA ROD. By J. H. Granbery. E. & M. J., vol. 87, p. 456. 2 columns. I.

A TIME-SAVING STADIA CHART. M. & M., vol. 30, p. 268. 2 columns. I.

A NEW METHOD OF MEASURING HEIGHTS BY MEANS OF THE BAROMETER. By G. K. Gilbert. U. S. G. S., 2d Ann. Rept., pp. 403-566. 1880-81. I.

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Magnetic Surveys

MAGNETIC DECLINATION IN THE UNITED STATES. By H. Gannett. U. S. G. S., 17th Ann. Rept., pt. 1, pp. 203-440. 1895-96. I.

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Surface Surveys: Claims, Etc.

A TRIANGULATION STATION. By L. Fraser. E. & M. J., vol. 87, p. 1124. 1½ columns. I.

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CONTOURING ON MINING PROPERTIES WITH THE AID OF THE TACHEOMETER. By H. P. Scale. T. Au. I. M. E., vol. 6, p. 62. 24½ pages. I.

MANUAL OF TOPOGRAPHIC METHODS. By H. Gannett. U. S. G. S., Bull. 307. 88 pages. I. 1906.

COOPERATION IN TOPOGRAPHY, HYDROGRAPHY AND GEOLOGY, BETWEEN THE UNITED STATES GEOLOGICAL SURVEY AND THE VARIOUS STATE GOVERNMENTS. By E. W. Parker. J. M. Soc. N. S., vol. 13, p. 109. 15 pages.

TOPOGRAPHIC ENGINEERING. By W. D. Blackburn. E. & M. J., vol. 87, p. 997. 3 columns.

A BALLOON SURVEY. By W. S. Weeks. E. & M. J., vol. 87, p. 1079. 1½ columns. I.

SURVEY OF THE NORTHWESTERN BOUNDARY OF THE UNITED STATES, 1857-1861. By M. Baker. U. S. G. S., Bull. 174. 78 pages. Map. 1900.

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TONNAGE ESTIMATION IN DUMPS, OPEN-CUTS, ETC. E. & M. J., vol. 87, p. 1011. 3 columns.

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MODERN METHODS IN MINE SURVEYING. By H. W. Gastrell. T. Au. I. M. E., vol. 13, p. 194. 16 pages. I.

DETAILS OF MINE SURVEYING. By A. E. Robinson. Min. & Sci. Press, vol. 101, p. 294. 11½ columns. I.

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MINE SURVEY NOTES. By G. W. Riter. T. A. I. M. E., vol. 41, p. 790. 7 pages.

MINE SURVEYING HINTS. By E. D. North. Min. & Sci. Press, vol. 98, p. 261. 1½ columns. I.

SURVEYING AND MAPPING IN THE GRANBY MINES. J. C. M. I., vol. 11, p. 403. 1½ pages.

See also MAP MAKING.

MINE SURVEYING METHODS EMPLOYED AT BUTTE, MONTANA. By P. A. Gow. E. & M. J., vol. 90, p. 1209. $8\frac{1}{2}$ columns. I.

COLLIERY SURVEY NOTES. By R. Shumway. M. & M., vol. 31, p. 61. $1\frac{1}{2}$ columns. I.

SURVEYING AT LYTLE COLLIERY. By J. H. Hærtter. M. & M., vol. 29, p. 108. $5\frac{1}{2}$ columns. I.

COLLIERY SURVEYS. By D. Harrington. M. & M., vol. 30, p. 94, $6\frac{1}{4}$ columns; p. 234, $2\frac{3}{4}$ columns; p. 305, $5\frac{1}{2}$ columns; p. 337, 5 columns, I.; p. 439, 5 columns.

SURVEYING AN INACCESSIBLE STOPE. By A. E. Robinson. Min. & Sci. Press, vol. 101, p. 678. $1\frac{1}{2}$ columns. I.

STOPE MEASUREMENTS. By O. S. Tounesen. P. C. M. & M. Soc. S. A., vol. 9, p. 375. 28 columns. I.

STOPE MEASUREMENTS. By O. S. Tounesen. P. C. M. & M. Soc. S. A., vol. 10, p. 18, $1\frac{1}{4}$ columns; p. 63, $3\frac{3}{4}$ columns, I.; p. 105, 2 columns; p. 140, $2\frac{1}{4}$ columns, I.; p. 369, $7\frac{3}{4}$ columns.

TUNNEL SURVEY IN AN ANTHRACITE COLLIERY. By D. P. Jones. E. & M. J., vol. 89, p. 881. $2\frac{1}{2}$ columns. I.

UNDERGROUND CURVES. E. & M. J., vol. 89, p. 1149. 1 column. I.

See also MINE ROADS, TRACKS, ETC.

A DISCUSSION OF MINE CURVE PROBLEMS. By J. E. Tiffany. E. & M. J., vol. 86, p. 230. $12\frac{1}{2}$ columns. I.

CONTOUR MAPS OF ORE-BODIES. M. & M., vol. 29, p. 343. $\frac{1}{2}$ column. I.

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Shaft-Plumbing

PLUMBING A DEEP SHAFT. Min. & Sci. Press, vol. 95, p. 427. $1\frac{1}{2}$ columns.

PLUMBING A SHAFT IN THE ANTHRACITE FIELDS. Coal Mining Supplement, E. & M. J., vol. 88, p. 37. $2\frac{1}{2}$ columns. I.

MODERN METHOD OF PLUMBING A SHAFT. By J. P. Davis. E. & M. J., vol. 89, p. 1174. 5 columns. I.

MINE SURVEYING: With Special Reference to Shaft Surveying. By C. E. Morrison. Sch. Mines Quart., vol. 29, p. 34. 12 pages. I.

TRANSPORTATION

Methods of Transportation

TRANSPORTATION. By R. Reford. J. M. Soc. N. S., vol. 12, p. 23. 34 pages.

COAL MINE TRANSPORTATION. By E. B. Wilson. M. & M., vol. 31, p. 408. $3\frac{1}{2}$ columns. I.

See also HAULAGE SYSTEMS.

TRANSPORTATION IN NICARAGUA. T. A. I. M. E., vol. 41, p. 602. 2 pages.

TRAVEL IN COLOMBIA. By C. De Kalb. Min. & Sci. Press, vol. 98, p. 350. 4 columns. Map.

PNEUMATIC TRANSPORTATION OF COAL. E. & M. J., vol. 89, p. 674. $\frac{1}{2}$ column.

See also COMPRESSED AIR IN MINING.

HINTS TO ORE SHIPPERS. By S. E. Bretherton. Min. & Sci. Press, vol. 101, p. 530. $5\frac{3}{4}$ columns.

See also ECONOMIC AND INDUSTRIAL FEATURES OF MINING.

Portage, Packing and Fluming

PORTAGE IN THE BOLIVIAN TIN MILLS. E. & M. J., vol. 90, p. 1054. $\frac{1}{4}$ column.

PACKING 13,000 FEET OF STEEL CABLE OVER A MOUNTAIN TRAIL. E. & M. J., vol. 86, p. 672. 1 column. I.

TRANSPORTATION BY ANIMALS IN MEXICO. E. & M. J., vol. 88, p. 680. 1 column.

MULE-BACK TRANSPORTATION OF SECTIONALIZED MACHINERY. By F. C. Roberts and W. W. Bradley. Min. & Sci. Press, vol. 98, p. 751. 9½ columns. I.

TRANSPORTATION BY SLUICE. E. & M. J., vol. 85, p. 1058. 1 column.

TRANSPORTATION OF COAL BY FLUME. By R. M. Magraw. M. & M., vol. 30, p. 236. 6 columns. I.

TRANSPORT OF MACHINERY IN MOUNTAINOUS COUNTRIES. By H. H. Kress and A. S. Cameron. Min. & Sci. Press, vol. 95, p. 471. 2 columns. I.

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Transportation by Rail

ALLOTMENT OF CARS ALONG THE CHESAPEAKE AND OHIO RAILWAY COMPANY. M. & M., vol. 29, p. 400. 1 column.

METHOD OF COAL CAR ALLOTMENT USED BY CAR ALLOTMENT COMMISSION OF THE NORFOLK AND WESTERN RAILWAY COMPANY. By W. A. Jenks. M. & M., vol. 29, p. 470. 1½ columns.

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See also INSPECTION OF MINES.

CAR DISTRIBUTION TO COAL MINES. E. & M. J., vol. 90, p. 599. 2 columns.

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THE RAILROAD SYSTEMS OF NORTHERN MEXICO. By H. A. Horsfall. E. &

M. J., vol. 87, p. 712. 4 columns. Map.

NARROW-GAUGE RAILWAYS FOR MINES AND SMELTING WORKS. By O. W. Scholz. E. & M. J., vol. 86, p. 1052. 1½ columns.

A EUROPEAN ELECTRIC COLLIERY RAILWAY. By J. B. Van Brussel. E. & M. J., vol. 89, p. 378. 5½ columns. I.

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COPPER RIVER AND NORTHWESTERN RAILROAD, ALASKA. By L. W. Storrin. E. & M. J., vol. 90, p. 77. 8½ columns. I.

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A NEW ARIZONA-SONORA RAILROAD. E. & M. J., vol. 90, p. 368. 3 columns. Map.

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STEEL RAILS. P. C. M. & M. Soc. S. A., vol. 9, p. 171. 1 column.

STEEL RAILS FOR PRESENT SERVICE: Their Manufacture and Their Failures. By P. H. Dudley. J. W. Soc. E., vol. 13, p. 471. 17½ pages. I.

ON THE DURABILITY OF RAILROAD IRON. By W. Truran. Min. Mag., vol. 4, p. 248, 10 pages; vol. 5, p. 291, 2 pages.

STANDARD RAIL SECTIONS AND FISH BAR JOINTS. By W. R. Jones. P. E. Soc. W. Pa., vol. 3, p. 33. 21 pages. I.

COMPARISON OF AMERICAN AND FOREIGN RAIL SPECIFICATIONS, WITH A PROPOSED STANDARD SPECIFICATION TO COVER AMERICAN RAILS ROLLED FOR EXPORT: A Discussion of A. L. Colby Paper. T. A. I. M. E., vol. 38, p. 916. 7 pages.

A RELIABLE STEEL RAIL AND HOW TO MAKE IT. By J. E. York. T. A. I. M. E., vol. 40, p. 341. 13 pages. I.

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ROAD RESISTANCES. By C. E. Morrison. Sch. Mines Quart., vol. 29, p. 159. 19 pages. I.

MACADAM ROADS AND THEIR PRESER-
VATION. By L. W. Page. J. W. Soc. E., vol. 15, p. 57. 23 pages.

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By N. S. Shaler. U. S. G. S., 15th
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ROAD DISTANCES IN NEVADA. Min. &
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TRANSPORTATION FACILITIES IN ALAS-
KA AND THE YUKON. By W. M. Brewer. Min. & Sci. Press, vol. 98, p. 485. $5\frac{1}{4}$ columns. Map.

THE NILE AS A MINING RIVER. By A. Del Mar. Min. & Sci. Press, vol. 95, p. 463. $5\frac{1}{2}$ columns. I.

WATER TRANSPORTATION IN THE BIRM-
INGHAM DISTRICT. E. & M. J.,
vol. 88, p. 301. $4\frac{3}{8}$ columns.

THE OHIO RIVER: Improvement for
Navigation. By J. W. Arras. P. E.
Soc. W. Pa., vol. 24, p. 241. 37
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THE MONONGAHELA RIVER: Methods
of Improvement of Navigation. By
T. P. Roberts. P. E. Soc. W. Pa.,
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CONSTRUCTION OF THE PANAMA CANAL.
M. & M., vol. 30, p. 330. $2\frac{1}{2}$ col-
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& M. J., vol. 89, p. 832. $6\frac{1}{4}$ col-
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SOME GERMAN OVERHEAD TRAMWAYS.
By A. Gradenwitz. E. & M. J.,
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HALLIDIES' ENDLESS WIRE ROPE-WAY.
Min. & Sci. Press, vol. 22, p. 104.
4 columns. I.

SHIPPING COAL BY AERIAL ROPEWAYS.
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- AERIAL TRAMWAY FOR COAL. By R. M. Magraw. M. & M., vol. 29, p. 531. 6½ columns. I.
- THE DEL CARMEN AERIAL TRAMWAY, MEXICO. M. & M., vol. 31, p. 437. 4 columns. I.
- THE ROPEWAY (OTTO) AT THE PIERREFITTE MINES, FRANCE. T. A. I. M. E., vol. 39, p. 374. 5 pages. I.
- TRANSPORTATION BY ELECTRICAL SUSPENDED RAILWAY. By A. Gradenwitz. E. & M. J., vol. 88, p. 912. 9 columns. I.
- AERIAL OR WIRE ROPE HAULAGE. M. & M., vol. 31, p. 46. 4 columns. I.
- UTAH CONSOLIDATED AERIAL TRAMWAY. By L. A. Palmer. M. & M., vol. 31, p. 150. 3½ columns. I.
- See also first volume of INDEX, COST OF TRAMMING, and COST OF OPERATING TRAMWAYS.

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- PROBLEMS OF TUNNEL DRIVING. By C. R. Gent. M. & M., vol. 30, p. 509. 1 column. I.
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- ADVANCING THE HOT TIME LATERAL OF THE NEWHOUSE TUNNEL. By H. M. Adkinson. E. & M. J., vol. 86, p. 757. 6½ columns. I.
- See also DIFFICULTIES ENCOUNTERED IN MINING, ETC.
- TUNNEL DRIVING IN COLORADO. By H. F. Bain. Min. & Sci. Press, vol. 99, p. 743. 9½ columns. I.
- LOADING BLAST HOLES AND DRIVING SMALL DRIFTS. P. C. M. & M. Soc. S. A., vol. 10, p. 152. 3 columns.
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- ON DRIVING ADITS AND THE MODE IN PRACTICE OF TIMBERING MINES. By W. Smyth. Min. Mag., vol. 9, p. 328. 4 pages.
- DRIVING BREASTS ON THE RAND. P. C. M. & M. Soc. S. A., vol. 10, p. 280. 2 columns. I.
- DRIVING A 7-FOOT ENTRY: Coal Mining. E. & M. J., vol. 86, p. 7. ¾ column. I.
- DRIVING BUTT-ENTRIES. E. & M. J., vol. 86, p. 17. 1 column.
- DRIVING HEADINGS IN ROCK TUNNELS. By W. L. Saunders. T. A. I. M. E., vol. 40, p. 432. 27 pages. I.
- See also DRAINAGE TUNNELS and COST OF TUNNELING.

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- ARRANGEMENT OF HOLES IN DRIVING THE ROOSEVELT TUNNEL. M. & M., vol. 29, p. 388. I.
- FAST TUNNEL DRIVING. E. & M. J., vol. 86, p. 1199. ½ column.

- FAST TUNNEL DRIVING. M. & M., vol. 31, p. 9. 1 column. I.
- FAST DRIFT WORK ON THE RAND. E. & M. J., vol. 87, p. 495. $1\frac{1}{2}$ columns.
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- RECORD DRIVING IN THE RAND DEEP LEVELS. By E. M. Weston. E. & M. J., vol. 85, p. 1257. $\frac{1}{2}$ column.
- RECORD IN DRIVING DRIFT IN SOUTH AFRICA. Min. & Sci. Press, vol. 97, p. 19. $\frac{1}{2}$ column.
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- AMERICAN RECORD IN TUNNEL DRIVING. E. & M. J., vol. 89, p. 1311. $1\frac{2}{3}$ columns.
- A WORLD'S RECORD IN TUNNEL DRIVING: The Los Angeles Aqueduct. By B. A. Keinly. Min. & Sci. Press, vol. 99, p. 589. 3 columns. I.
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- UTAH METAL COMPANY TUNNEL. By L. A. Palmer. M. & M., vol. 31, p. 296. $2\frac{3}{4}$ columns. I.
- TUNNEL OF THE UTAH METAL MINING COMPANY. E. & M. J., vol. 89, p. 1269. $1\frac{1}{4}$ columns.
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- HOLYWELL-HALKYN TUNNEL AND MINES, HOLYWELL, NORTH WALES. By J. P. Jones. T. I. M. E., vol. 36, p. 197. 5 pages. I.
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- TUNNELS UNDER THE CHICAGO RIVER FOR ELECTRIC CABLES. By G. B. Springer. J. W. Soc. E., vol. 13, p. 41. 30 pages. I.
- VIDLER TUNNEL, COLORADO. E. & M. J., vol. 88, p. 515. $\frac{1}{2}$ column.
- THE LARAMIE TUNNEL. By R. L. Herrick. M. & M., vol. 30, p. 541. 3 columns. I.
- ALPINE AND AMERICAN TUNNEL RECORDS. Min. & Sci. Press, vol. 96, p. 781. 1 column. Table.
- See also DRAINAGE TUNNELS and COST OF TUNNELING.

Tunneling Machines

- TUNNELING MACHINES. E. & M. J., vol. 90, p. 1144. 1 column.
- TUNNELING MACHINES. T. A. I. M. E., vol. 40, p. 453. $6\frac{1}{2}$ pages.
- A NEW TUNNELING MACHINE. Min. & Sci. Press, vol. 22, p. 153. 4 columns. I.
- PRACTICAL TEST OF A TUNNEL BORING MACHINE. By J. Tyssowski. E. & M. J., vol. 87, p. 1296. 4 columns. I.
- THE KARNS TUNNELING MACHINE. By R. L. Herrick. M. & M., vol. 29, p. 110. $2\frac{1}{2}$ columns. I.
- TRIAL OF THE KARNS TUNNELING MACHINE. E. & M. J., vol. 87, p. 297. 1 column.

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MINE VENTILATION

Methods of Ventilating Mines, Splitting Air Currents, Etc.

MINE VENTILATION. By H. J. Nelmes. E. & M. J., vol. 88, p. 782. $1\frac{1}{2}$ columns. I.

MINE VENTILATION. By T. W. Fitch and J. R. McColl. M. & M., vol. 30, p. 590. $1\frac{1}{2}$ columns.

MINE VENTILATION. By A. Del Mar. E. & M. J., vol. 85, p. 1043. $3\frac{1}{2}$ columns.

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THE VENTILATION OF MINES AND COLLIERIES. By J. Phillips. Min. Mag., vol. 3, p. 3, 13 pages, I.; p. 268, 13 pages; p. 377, 7 pages; vol. 4, p. 1, 16 pages; p. 257, 14 pages.

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DATA ON COAL MINE VENTILATION. E. & M. J., vol. 87, p. 757. $2\frac{3}{4}$ columns.

VENTILATING SYSTEM AT THE COMSTOCK MINES, NEVADA. By G. J. Young. T. A. I. M. E., vol. 41, p. 3. 55 pages. I.

METAL MINE VENTILATION. By E. W. Buskett. M. & M., vol. 31, p. 19. $\frac{1}{2}$ column. I.

METAL MINE VENTILATION. M. & M., vol. 31, p. 337. $3\frac{1}{2}$ columns.

METAL MINE VENTILATION. M. & M., vol. 30, p. 662. $3\frac{1}{2}$ columns.

MINE VENTILATION: Water-jet and Air-jet Systems. E. & M. J., vol. 89, p. 1189. 1 column. I.

NECESSITY FOR ATTENTION TO VENTILATION AND SANITATION OF MINES. P. C. M. & M. Soc. S. A., vol. 6, p. 256. 5 columns.

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Mechanical Ventilators: Fans, Their Construction and Use

UNDERGROUND VENTILATORS IN THE COMSTOCK MINES. Min. & Sci. Press, vol. 100, p. 419. $\frac{1}{4}$ column.

AIR CONDITIONING APPARATUS: Preparing Air for Various Uses. By W. H. Carrier. P. E. Soc. W. Pa., vol. 26, p. 203. 30 pages. I.

MINE VENTILATING FANS. By J. R. McColl. M. & M., vol. 30, p. 729. $2\frac{1}{2}$ columns. I.

PROPORTIONING FANS TO MINES. By T. W. Finch and J. R. McColl. M. & M., vol. 30, p. 700. $3\frac{1}{2}$ columns. I.

PRESSURE-FANS vs. EXHAUST-FANS. By A. H. Stow. T. A. I. M. E., vol. 40, p. 398, $14\frac{1}{2}$ pages; Discussion, p. 874, $4\frac{1}{2}$ pages.

DETAILED CONSTRUCTION OF HIGH-SPEED FAN FOR LARGE VEIN. E. & M. J., vol. 89, p. 428. I.

A NEW MINE FAN: Jeffrey Centrifugal Fan. E. & M. J., vol. 85, p. 369. 1 column. I.

A NEW VENTILATING FAN FOR MINES. By M. C. Mitchell. M. & M., vol. 30, p. 221. 2½ columns. I.

THE SQUIRREL CAGE FAN FOR MINE VENTILATION. E. & M. J., vol. 89, p. 674. 2 columns. I.

WIDTH OF FAN BLADE. M. & M., July, 1902, p. 569.

BENEFITS OF AN AUXILIARY FAN. By H. M. McAlarney and W. H. Kephart. M. & M., vol. 29, p. 354. 1½ columns. I.

THE ROTARY BLOWER IN SMELTING WORKS. By G. C. Hicks, Jr. E. & M. J., vol. 87, p. 352. 10¾ columns. I.

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NOTE ON THE DAILY VARIATION OF RAND MINE VENTILATION. By J. Moir. P. C. M. & M. Soc. S. A., vol. 8, p. 138, 5½ columns; p. 278, 4½ columns.

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THE POCAHONTAS AUTOMATIC MINE DOOR. By A. H. Stow. E. & M. J., vol. 86, p. 862. 1¼ columns. I.

SELF-ACTING MINE DOORS. E. & M. J., vol. 88, p. 1237. 1 column. I.

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VENTILATING CURRENTS AND STOPPINGS. By J. Duncan. M. & M., vol. 30, p. 691. ½ column.

AIR-TIGHT STOPPINGS FOR USE DURING UNDERGROUND FIRES. By R. V. Spier. T. A. I. M. E., vol. 13, p. 138. 3½ pages. I.

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TEST OF A WADDLE FAN. By G. L. Kerr. M. & M., vol. 30, p. 294. 4¼ columns. I.

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AMOUNT OF FREE WATER IN THE EARTH'S CRUST. M. & M., vol. 29, p. 539. $\frac{1}{2}$ column.

VOLCANIC WATERS. By J. H. Hastings. Min. & Sci. Press, vol. 97, p. 229. 6 columns.

See also **AIR-BLASTS, VOLCANOES, AND EARTHQUAKES.**

WATERS, METEORIC AND MAGMATIC. By J. F. Kemp. Min. & Sci. Press, vol. 96, p. 705, $6\frac{7}{8}$ columns; p. 872, $6\frac{1}{8}$ columns, I.

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It has been found impracticable to index all subjects considered in the references given in this work, but it is hoped that the present index will prove to be amply exhaustive to give ready access to any desired information.

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